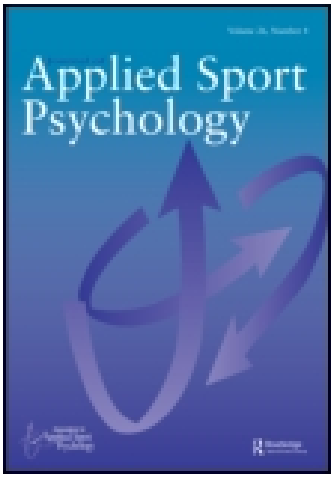

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Impact of Organizational Citizenship Behavior on Performance in Women's Sport Teams

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The current study examined the relationship between organizational citizenship behavior and sport team performance and the moderating role of task interdependence in that relationship. Two types of collegiate teams—softball ($N = 25$) and tennis ($N = 15$)—were utilized to represent different levels of task interdependence with softball being considered more interdependent than tennis. Athletes ($N = 448$) answered survey questions concerning organizational citizenship behavior (helping, civic virtue, sportsmanship [due to the historic use of the term "sportmanship" in developing the measures used in this study, that term will be used instead of "sportpersonship"]), team cohesiveness, athlete satisfaction, and transformational leadership behaviors. Researchers collected performance statistics for athletes. Results indicated that helping behavior was the strongest organizational citizenship behavior predictor of performance, but the effect differed between tennis and softball teams.

Although sport teams and organizational teams operate in different environments with diverse demands, several of the same constructs impact performance in both domains. Studying efficient and effective organizational teams can shed light on the conditions under which sport teams are successful. However, there are few studies that have attempted a cross-disciplinary approach by using organizational constructs to better understand performance in sport teams (Aoyagi, Cox, & McGuire, 2008; Fletcher & Wagstaff, 2009).

ORGANIZATIONAL CITIZENSHIP BEHAVIOR

Organizational citizenship behavior (OCB) is a well-studied topic in organizational research and could potentially provide insight to group dynamics within sport teams. The theory underlying OCB can be traced back to Chester Barnard (1938), who emphasized the importance of members' willingness to go beyond that which is required of them by the formal rewards system. Barnard drew a distinction between the formal and informal systems by referring to "willingness" as an aspect of people that in the collective encourages a stream of cooperative endeavors and, ultimately, a sense of interconnectedness. Katz and Kahn (1966) furthered Barnard's ideas and argued that effective organizations call for extrarole behaviors (i.e., behaviors that cannot be required from employees for a given job) such as participation in cooperative activities with fellow employees, self-training, and so on. Based on these past ideas, Organ and his colleagues (Bateman & Organ, 1983; Smith, Organ, & Near, 1983) first introduced the construct of OCB. Organ (1988) formally defined OCB as "individual behavior

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that is discretionary, not directly or explicitly recognized by the formal rewards system, and that in the aggregate promotes the effective functioning of the organization" (p. 4). In addition, Organ (1988) first proposed that OCB is best conceptualized by five factors—helping, conscientiousness, sportsmanship, courtesy, and civic virtue—and later expanded this model to include additional factors—peacekeeping and cheerleading (Organ, 1990). More recently, Podsakoff, Ahearne, and MacKenzie (1997) utilized a scale that operationalized these various factors within three dimensions—helping behavior (i.e., helping others with or preventing the occurrence of problems), civic virtue (i.e., responsible participation, involvement, and concern about the organization), and sportsmanship (i.e., tolerating problems without complaining). This conceptualization was utilized in the current study.

OCB and Performance

Researchers have identified multiple mechanisms by which OCB might influence organizational effectiveness or performance. For one, OCB has the potential to enhance coworker or managerial productivity (MacKenzie, Podsakoff, & Fetter, 1991, 1993; Organ, 1988; Podsakoff & MacKenzie, 1994). When employees voluntarily help new coworkers learn the ropes, the new coworkers become better employees faster, which in turn benefits the work group as a whole. This concept can also be applied to sport teams. For example, when more experienced athletes take time to help new teammates figure out how practices and plays are conducted, the new teammate will catch on quicker, allowing practices to run more smoothly and effectively. Also, helping behaviors exhibited by employees or athletes, can enhance managerial productivity. If the manager or coach does not have to take time explaining the ins and outs to the new employee/athlete that frees up his or her time to focus on more productive tasks such as strategic planning. Managerial productivity may also be boosted when group members offer suggestions for improving group performance (i.e., civic virtue) or refrain from complaining about trivial issues (i.e., sportsmanship; Organ, Podsakoff, & MacKenzie, 2006).

OCB may also improve organizational performance by reducing the need to devote valuable resources to purely maintenance functions (Organ, 1988; Organ et al., 2006). Helping behaviors such as cheerleading (e.g., encouraging group members when they are down) and peacekeeping (e.g., acting like a peacemaker when other group members have disagreements) often result in enhanced team spirit, morale, and cohesiveness, which reduces the need for the group to spend time and energy on group-maintenance functions (Organ et al., 2006). Organ et al. (2006) admitted that, individually, these behaviors may be inconsequential, but collectively they have the power to significantly improve organizational performance.

Organ and colleagues began a series of studies to reliably demonstrate the relationship between OCB and organizational effectiveness (cf. Table 7.2 in Organ et al., 2006). Specifically, the studies examined the effects of OCB on group/organizational effectiveness in insurance agency units (Podsakoff & MacKenzie, 1994), paper mill work crews (Podsakoff et al., 1997), and limited-menu restaurants (Walz & Niehoff, 2000). Helping behavior consistently had a positive impact on performance, with the exception of the negative impact it had on quantity of performance in Podsakoff and Mackenzie's (1994) study (insurance agency units). Similar to helping behavior, civic virtue generally enhanced performance with positive effects for the insurance agency units and limited-menu restaurants (Podsakoff & MacKenzie, 1994; Walz & Niehoff, 2000). Finally, sportsmanship was found to improve the quantity of performance, but only in the insurance agency units and paper mill work crews (Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994). Overall, the studies reported by

Organ et al. (2006) provide strong support for the OCB–performance relationship. These studies also revealed inconsistencies in the strength and direction of the OCB–performance relationship, which potentially emerged due to other factors such as task interdependence. Furthermore, a recent review of the OCB literature, conducted by Podsakoff, Whiting, Podsakoff, and Blume (2009), indicated an overall positive relationship between unit-level OCBs and unit-level performance ($k = 38$; $N = 3{,}611$ units, $r_c = .43$). In this study, we expected to find an overall positive relationship between OCB and performance; however, we also expected the strength of the OCB–performance relationship to differ between softball and tennis teams.

To the best of our knowledge, Aoyagi et al. (2008) conducted the only study on OCB and sport teams in which they attempted to show the utility of OCB behaviors in sport. The researchers conducted a study with 193 student-athletes investigating the relationship between predictors of performance (leadership, cohesion, and satisfaction) and OCB. In summary, Aoyagi et al. demonstrated that leadership was related with satisfaction, cohesion, and OCB; cohesion was associated with OCB; and satisfaction was related with cohesion. These results offer preliminary evidence for the validity of OCB as a predictor of team performance in sport, and Aoyagi et al. proposed important future directions. Most notably, performance was not measured in this study, and no research has yet shown how OCB might impact performance in sport teams. Thus, the current study aimed to fill this gap.

Task Interdependence as a Moderator of the OCB-Performance Relationship

Task interdependence can be defined as the extent to which group members (e.g., employees or teammates) depend on other members of their group to carry out the task effectively and efficiently (Bachrach, Powell, Bendoly, & Richey, 2006; Van der Vegt & Van de Vliert, 2005). Theoretically, all teams, regardless of level of task interdependence, should benefit from OCB. However, the degree to which OCB impacts performance may depend on the level of task interdependence (Bachrach, Powell, Bendoly, et al., 2006; Organ, 1988; Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Smith et al., 1983; Van der Vegt & Van de Vliert, 2005). In a series of studies, Bachrach, Powell, Bendoly, et al. (2006) recently explored the impact of task interdependence on the relationship between OCB and employee performance evaluations and found that task interdependence may affect the importance attributed to OCB by evaluators. Specifically, OCB is weighted by evaluators as more important in high versus low task interdependence situations. Although this evidence is compelling, the question remains, How does task interdependence interact with OCB to influence actual performance outcomes? Nielsen, Hrivnak, and Shaw (2009) conducted a meta-analytic review of 38 studies in which results indicated an overall positive OCB-performance at the group level ($\rho = .29$) and the presence of several moderating variables, including interdependence. Due to the lack of adequate descriptions of the samples, tasks, and contexts in the reviewed studies, Nielsen et al. (2009) were unable to reliably code and assess the impact of moderators. However, based on past research, Nielsen et al. speculate that the degree of interdependence required for the performance of a team's task might impact the appropriateness and frequency of OCB. More research is needed to examine the observed effects of OCB on performance at different levels of task interdependence.

THE CURRENT STUDY

The current investigation assessed the impact of OCB on performance in women's sport teams and whether the degree of interdependence among team members moderates

the OCB–performance relationship. We chose two types of collegiate teams—softball and tennis—to represent different levels of task interdependence with softball being considered more interdependent than tennis.[1] Softball was labeled as more interdependent than tennis because softball team members depend on each other more to carry out their tasks effectively and efficiently. For example, softball team members may be more reliant on each other to carry out their tasks because they cannot fulfill multiple positions simultaneously. A shortstop who fields a grounder cannot run the ball over to first base and beat the batter for an out. Instead, the shortstop must successfully field and throw the ball to the person on first base who must successfully catch the throw from the shortstop and tag first base before the runner reaches the base. With regard to batting, runners will advance bases depending on whether the subsequent batters get hits to advance them. However, tennis may be considered less interdependent such that singles tennis players rely solely on themselves during a match. Tennis doubles are interdependent in that the two players need to be communicating with each other frequently, but doubles tennis players rely on one other person, as opposed to eight other players, as it is in softball. It was predicted that team-level OCBs, which were aggregated scores of the athletes' self-reported OCBs, would be positively related to a team-level performance composite. It was also hypothesized that task interdependence (high: softball, low: tennis) would moderate the effects of the aggregated value of OCBs on team performance. Specifically, the OCB–performance relationship was expected to be stronger for softball teams compared to tennis teams.

Additional variables, including team cohesiveness, athlete satisfaction, and transformational leadership behaviors, were measured as potential controls for the performance analyses to isolate the effects of OCB on team performance. Because OCB is a relatively new construct in sport psychology, we included these additional variables in the analyses to ensure that participants' responses to OCB measures were not redundant with the other measures. That is, OCB may be influenced by team cohesiveness, athlete satisfaction, and transformational leadership behaviors; however, the OCB scales measure OCB behaviors rather than how cohesive athletes feel the team is, how satisfied the athletes are, and how much athletes respect their leader. OCBs may influence performance through these other variables, but they might also affect performance directly by improving member performance or team coordination. Moreover, correlational analyses assessed the degree to which OCB might be related to team cohesiveness, athlete satisfaction, and leadership behaviors.

METHOD

Participants

Student-athletes from 25 women's collegiate softball and 15 women's collegiate tennis teams voluntarily participated in the study. The teams were represented by NCAA Division I, Division II, and Division III universities and colleges that were generally located in the midwest. On average, the softball teams were composed of 19 members, and on average, the tennis teams had nine members. The total number of athletes ($N = 592$) included 458 softball athletes (77.4%) and 134 tennis athletes (22.6%). In the preseason, 448 of the 592 athletes responded to the survey for an overall response rate of 75.7%. Of the 448 athletes who responded in the preseason, 357 were softball athletes (79.7%) and 91 were tennis athletes (20.3%). The proportions of responses in the preseason accurately reflect the overall proportion of softball and tennis athletes in this sample. Three of the 25 softball teams did not participate in the postseason survey. Due to attrition and the highly correlated nature between the postseason

survey responses and performance outcomes (collected in the postseason and representative of entire season), only the relationship between the preseason responses and performance outcomes is discussed.

The ages of the athletes ranged from 17 to 23 with an average age of 19.8 ($SD = 1.2$). The number of years having participated on the team (i.e., year in sport) ranged from 1 to 6 years with an average of 2.2 years ($SD = 1.2$). This indicates that a typical respondent was likely to be a sophomore or junior. The preseason sample was primarily composed of Caucasians (approximately 90%), with individuals identifying themselves as Hispanic/Latino (3.4%), African American/Black (1.4%), Asian (0.9%), Multiracial (0.9%), Filipino/Filipino American (0.7%), Biracial (0.7%), American Indian/Alaska Native (0.2%), East Indian/Pakistani (0.2%), Pacific Islander (0.2%), and Other (1.1%) composing the rest of the sample.

Instruments

OCB

For this project, we adapted the measure of OCB developed by Podsakoff et al. (1997). We modified the items to refer to "team citizenship behavior" to make them relevant to the sport team context, as our focus was not the entire organization (university) but rather the specific sport team. The items from the OCB scale were translated to apply to sport teams (e.g., "willingly share my expertise with other members of the crew" to "willingly share my expertise with other teammates"). Most OCB research has measured citizenship behavior from the perspective of the supervisor rather than from the work group members themselves. In this study, OCB was measured from the perspective of each athlete. The athletes filled out the scale with regard to their personal OCB. The three subscales of the OCB scale—Helping Behavior, Sportsmanship, and Civic Virtue—had seven items, three items, and three items, respectively. All 13 items were scored on a 7-point Likert scale ranging from 1 (*strongly disagree)* to 7 (*strongly agree*). Podsakoff et al. demonstrated the convergent and discriminant validity of the OCB measure.

Team cohesiveness

A revised version of the Group Environment Questionnaire (GEQ; Carron, Widmeyer, & Brawley, 1985) was utilized to measure cohesion. Of the four constructs operationalized in the GEQ, we included two in the athlete questionnaire—Group Integration–Task (a member's perceptions of the similarity and unification of the group as a whole around its tasks and objectives; e.g., "our team is united in trying to reach its goals for performance") and Group Integration–Social (a member's perception of the similarity and unification of the group as a social unit; e.g., "members of our team stick together outside of practices and games"). Because the individual attractions subscales had some overlap with the other measures, only the Group Integration–Task (five items) and Group Integration–Social (four items) subscales of GEQ were included in the survey. All items were rated using a 7-point Likert scale as just described. Higher scores reflected stronger perceptions of cohesiveness within the team.

Athlete satisfaction

We measured athlete satisfaction with various aspects of the team sport experience using the Athlete Satisfaction Questionnaire (ASQ; Riemer & Chelladurai, 1998). To keep the athlete questionnaire brief, only three of the 15 ASQ subscales were included—Athlete Satisfaction With Individual Performance (two items), Team Performance (two items), and Ability Utilization (e.g., the extent to which the athlete's abilities are used on the team; four items). The

other subscales were not included because they are redundant with the other questionnaires. All items were rated using a 7-point Likert scale as just described.

Transformational leadership

A portion of the Multifactor Leadership Questionnaire (MLQ; Avolio, Bass, & Jung, 1995) was used to measure athletes' perceptions of their coach's transformational leadership behaviors. The MLQ is a 45-item questionnaire that measures multiple aspects of transactional, transformational, and laissez-faire leadership behaviors. In the athlete questionnaires, only the subscales measuring transformational leadership behaviors were included, because these are the leadership behaviors of interest. The transformational leadership subscales in the MLQ measure idealized influence (attribute; e.g., "displays a sense of power and confidence"), idealized influence (behavior; e.g., "specifies the importance of having a strong sense of purpose"), inspirational motivation (e.g., "articulates a compelling vision of the future"), and individualized consideration (e.g., "helps me to develop my strengths"). The scale for intellectual stimulation was excluded because the items are not as relevant in a sport setting (e.g., "seeks differing perspectives when solving problems"). Twelve items measured transformational leadership behaviors, and each was rated on a 5-point scale ranging from 0 (*not at all*) to 4 (*frequently, if not always*), indicating the frequency with which the coach fits these statements. The MLQ has shown adequate reliability and validity (Avolio et al., 1995).

Team performance

Team success was operationally defined by a combination of team-level statistics. Because the performance statistics between softball and tennis differ, the team-level statistics were first transformed to *z* scores and averaged to form a composite score for each team. A composite was formed, rather than simply using a team's win–loss percentage, because a team's win–loss record is not entirely representative of the team's success.[2] For example, a softball team could have batted and fielded well against the opposing team but still have lost for a variety of reasons (e.g., hits were not consecutive). Thus, win–loss percentage was included as one factor in the composite team performance score, rather than acting as the sole indicator of team performance. The softball team performance composite included team batting average, slugging percentage, on-base percentage, fielding percentage, earned run average, and win–loss percentage. The tennis team performance composite included overall singles and doubles win-loss percentages, as well as the team win–loss percentage. The team win–loss percentage for tennis is a separate statistic from the singles and doubles win–loss percentages.

Procedure

The study was approved by the institutional review board of a midwestern university. Researchers sent e-mails explaining the purpose of the study to collegiate softball and tennis coaches from approximately 200 colleges and universities. The e-mail explained what the study would entail and that research like this is needed to understand the specific conditions under which certain factors influence performance in sport teams. Coaches who indicated interest in their team participating in the study received a follow-up e-mail with additional information about how the study would proceed. If coaches indicated that they were not interested, they received an e-mail thanking them for their time. Of the colleges/universities that did not have any teams participate in the study, approximately 38% represented NCAA Division I, 19% represented NCAA Division II, and 43% represented Division III, compared to colleges/universities with participating team(s), which represented 37% NCAA Division I, 34% NCAA Division II, and 29% NCAA Division III. Of the colleges/universities that did not

have any teams participate, approximately 60% represented private and 40% represented public colleges/universities, whereas of colleges/universities that had participating team(s), 57% represented private and 43% represented public colleges/universities. Finally, the enrollment size for nonparticipating colleges/universities ($M = 8{,}154$, $SD = 9{,}129$) was not significantly different from participating colleges/universities ($M = 9{,}537$, $SD = 9{,}791$). In general, the colleges/universities with participating team(s) were comparable to colleges/universities that had no teams participate in the study. Thus, overall, the colleges and universities that did participate appear relatively similar to those that did not. Before the questionnaires were sent out, coaches were asked to provide an electronic statement stating that they agree to have their team participate in the study. After each statement was received, the link to fill out the athlete questionnaire was e-mailed to the coach, who then forwarded it to his or her team. There was also a separate link for the coach's questionnaire. Both questionnaires were created on SurveyMonkey and were available on any computer that had access to the Internet. Both questionnaires included an informed consent form in which the athlete or coach had to select an option that says, "Yes, I agree to participate" to continue on to the questionnaire. The informed consent preceding the student-athlete questionnaire emphasized that their participation was completely voluntary and confidential. The athletes' questionnaire included measures of OCB, team cohesiveness, athlete satisfaction, and transformational leadership behaviors and took between 10 and 15 min. The questionnaires came at the beginning of the team's season (January/February 2012). At the end of the season (after tournament play; May/June 2012), performance statistics were collected from each team, which represented the team's performance over the entire season. These statistics were available on each team's website and could be viewed by the general public.

Data Analysis

We first examined the reliability of the scales by calculating Cronbach's alphas. We also tested the factor structure of the OCB scale across sport by using confirmatory factor analyses (CFA) in LISREL 8.80 for Windows (Jöreskog & Sörbom, 2006). To test the invariance of the best-fitting CFA model across sport, we used multigroup CFA in LISREL 8.80. In addition, it was predicted that the measured variables—OCBs, team cohesiveness, athlete satisfaction, and transformational leadership behaviors—would be positively correlated with each other, and with performance measures. Therefore, bivariate correlations were conducted between all variables at the team level. Finally, multiple regression analyses were conducted to explore the relationship between OCBs and team performance and the moderating role of task interdependence in that relationship. The reliability, bivariate, and multiple regression analyses were conducted in SPSS (SPSS Inc., 2009).

RESULTS

Preliminary Analyses

We calculated Cronbach's alphas to determine the internal consistency of all the measures. The 13 items of the OCB scale demonstrated acceptable reliability of .74. In addition, the team cohesiveness, transformational leadership, and athlete satisfaction measures all exhibited acceptable scale reliabilities—$\alpha = .89$, $\alpha = .90$, and $\alpha = .86$—respectively. To examine the factor structure of the OCB scale, we conducted CFA using LISREL 8.80. Based on previous evidence that the OCB scale consists of three factors (Podsakoff et al., 1997), several measurement models were tested to confirm that the OCB scales used for this population

were best explained by three latent factors. The results indicated that a three-factor correlated (oblique) model of OCB provided the best fit to the data, $\chi^2(62, N = 427) = 227.88$, $p < .001$, root mean square error of approximation = .082, standardized root mean square residual = .064, goodness of fit index = .92, comparative fit index = .92, nonnormed fit index = .90. Finally, we conducted multigroup CFA to test the invariance of this three-factor (correlated) model across sports. For the OCB scale, one model assessed the invariance of factor correlations and another assessed the invariance of factor covariances. Results indicated that the matrices were not completely invariant across sports.[3] In particular, the covariance matrices were especially different. Because of unique error variance associated with each sport, the items should not be simply averaged across the entire scale, or even averaged for subscales. Instead, softball and tennis athletes' data were separated, and then a single factor (regression form) was extracted from each subscale using principal axis factoring (PAF). PAF separates the variance in items into common variance (which is predicted by the latent variables) and unique error variance (which is unrelated to the latent variables). These factor scores (one for each subscale—Helping, Civic Virtue, Sportsmanship) were then used for the subsequent analyses.

Correlational Analyses

We conducted bivariate correlations between team-level variables (see Table 1). Team cohesiveness was significantly and positively related to helping behavior and sportsmanship. Moreover, the relationships between OCBs and other variables (team cohesiveness, transformational leadership, and athlete satisfaction) were generally stronger than those between OCBs and hard measures of performance. Descriptives for OCBs, team cohesiveness, transformational leadership, athlete satisfaction, and performance variables are also reported in Table 1.

Multiple Regression Analyses

To test the relationship between OCB and team performance and the moderating role of task interdependence (i.e., sport) in that relationship, we conducted multiple regression analyses

Table 1
Correlation Matrix for Aggregated Team Variables

	Softball		Tennis											
Variable	***M***	***SD***	***M***	***SD***	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1. OCB–Helping	5.88	.22	5.81	.29	1									
2. OCB–Civic Virtue	5.62	.26	5.62	.26	.759**	1								
3. OCB–Sportsmanship	5.27	.22	5.20	.36	.240	.218	1							
4. Leadership	4.30	.32	4.16	.28	.172	.175	.127	1						
5. Athlete satisfaction	5.39	.38	5.17	.54	.209	.146	−.125	.560**	1					
6. Team cohesiveness	5.76	.57	5.38	.66	.505**	.371*	.124	.548**	.575**	1				
7. Win–loss%	.48	.19	.57	.19	.084	.010	.213	.218	−.042	.195	1			
8. Team performance	−.03	.80	.10	.98	.111	.022	.196	.230	.075	.263†	.940**	1		
9. Low TI performance	0	.93	0	1.0	−.020	−.083	.152	.168	.099	.174	.815**	.930**	1	
10. High TI performance	0	.90	0	1.0	.309†	.188	.194	.270†	.118	.391*	.818**	.863**	.637**	1

Note. $N = 40$. Helping, Civic Virtue, Sportsmanship: Means and standard deviations are calculated from raw values because extracted factors have means of zero; Team performance, low TI performance, high TI performance: Means and standard deviations reflect a normal distribution because performance statistics were first transformed to *z* scores and averaged to form composite team performance scores. OCB = organizational citizenship behavior; TI = task interdependence.
†$p < .10$. *$p < .05$. **$p < .01$.

Table 2
Multiple Regression Results for OCB Predicting Team Performance

Measures	*R*	R^2	*F*	*df*	*B*	*SE*	*β*
Model	.644	.415	2.057†	(3, 29)			
Sport					.335	.265	.191
OCB–Helping					−1.255	.760	−.532
OCB–Civic Virtue					.001	.896	0
OCB–Sportsmanship					−.279	.974	−.071
Sport × OCB–Helping					2.743	1.128	.851*
Sport × OCB–Civic Virtue					−1.201	1.706	−.225
Sport × OCB–Sportsmanship					1.405	1.247	.280
Team cohesiveness					.325	.310	.237
Leadership					.885	.567	.319
Athlete satisfaction					−.311	.373	−.164

Note. $N = 40$. OCB = organizational citizenship behavior.
†$p < .10$. *$p < .05$.

using the procedures outlined by Aiken and West (1991). Analyses predicted composite team performance outcomes from the centered main effects of the OCB subscales (Helping, Civic Virtue, and Sportsmanship), team cohesiveness, transformational leadership, and athlete satisfaction, as well as the dichotomous variable (tennis, softball) and the interaction terms between OCB subscales and sport.

At the beginning of their respective seasons, athletes were instructed to rate themselves on the extent to which they personally exhibit OCB toward their teammates. Factor scores were extracted from each OCB subscale—Helping, Civic Virtue, and Sportsmanship—using PAF. These individual factor scores were then aggregated to form three OCB subscale scores for each team. To test if perceived OCB positively predicts team-level performance and if sport moderates this relationship, we conducted a multiple regression analysis on the team performance composite measure. Results indicated that there were no significant effects of sport, helping behaviors, civic virtue, sportsmanship, team cohesiveness, transformational leadership behaviors, or athlete satisfaction on team performance. However, the results indicated a significant sport × helping interaction (see Table 2).

Simple slope tests exploring the significant sport × helping interaction demonstrated a negative relationship between helping behavior and team performance for softball teams ($B = –1.255$, $\beta = –.532$, $p = .110$) and a positive relationship between helping behavior and performance for tennis teams ($B = 1.488$, $\beta = .631$, $p = .108$). These results imply that helping behavior has a potentially negative impact on team performance in softball teams, whereas in tennis teams, helping behavior has a potentially positive impact on team performance (see Figure 1). Because these results are contrary to predictions, we conducted follow-up analyses.

Follow-up analyses

To further explore when helping behaviors might have a negative effect on team performance, two team performance composites were created—one that reflected low task interdependence performance measures and another that reflected high task interdependence measures. For softball, the low task interdependence performance composite included the average of standardized scores for batting average, on base percentage, and slugging percentage, whereas for tennis, it included singles win–loss percentage (standardized). For softball, the

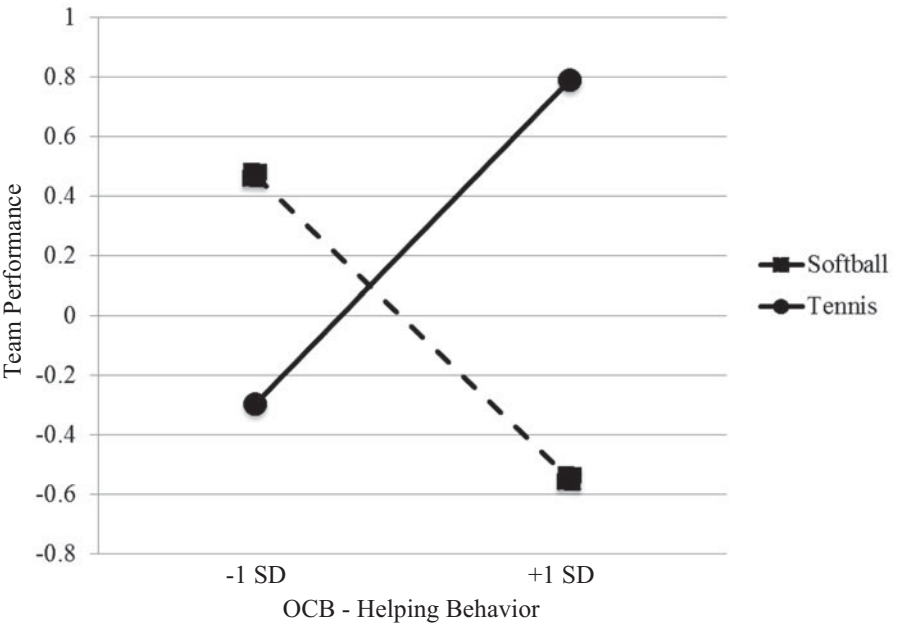

Figure 1. Simple slopes of helping behavior predicting team performance for softball and tennis teams. *Note.* OCB = organizational citizenship behavior.

high task interdependence composite included the average of standardized scores for fielding percentage and earned run average, and for tennis, it included doubles win–loss percentage (standardized).

We conducted a multiple regression analysis predicting the low task interdependence team performance composite. Helping behavior demonstrated a significant negative effect on team performance (see Table 3). In addition, the main effect of helping behavior was qualified

Table 3
Multiple Regression Results for OCB Predicting Low Task Interdependence Performance

Measures	*R*	R^2	*F*	*df*	*B*	*SE*	*β*
Model	.673	.452	2.396*	(3, 27)			
Sport					.196	.280	.102
OCB–Helping					−1.870	.806	−.724*
OCB–Civic Virtue					.005	.949	.001
OCB–Sportsmanship					−.379	1.032	−.088
Sport × OCB–Helping					3.462	1.196	.981**
Sport × OCB–Civic Virtue					−1.391	1.808	−.238
Sport × OCB–Sportsmanship					1.762	1.322	.321
Team cohesiveness					.210	.328	.139
Leadership					.770	.601	.254
Athlete satisfaction					−.092	.395	−.044

Note. $N = 40$. OCB = organizational citizenship behavior.
*$p < .05$. **$p < .01$.

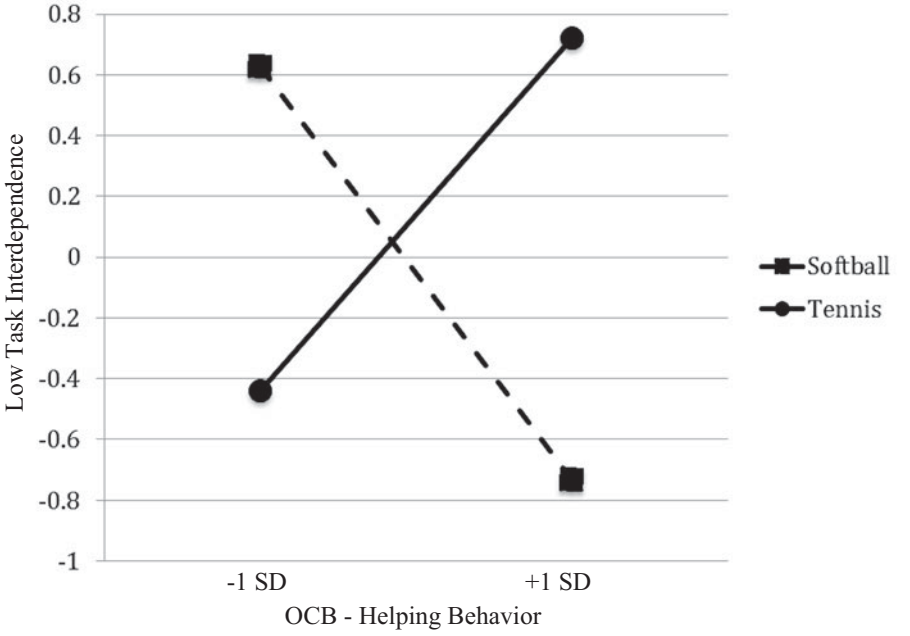

Figure 2. Simple slopes of helping behavior predicting low task interdependence team performance for softball and tennis teams. *Note.* OCB = organizational citizenship behavior.

with a significant sport × helping behavior interaction. Here, the simple slope tests revealed that helping behavior negatively impacts low task interdependence performance in softball teams ($B = -1.87$, $\beta = -.724$, $p = .027$), but not in tennis teams ($B = 1.159$, $\beta = .617$, $p = .104$). Of interest, when we conducted the multiple regression analysis on the high task interdependence performance composite, there were no significant effects and no significant interactions. Concerning helping behavior, these results could indicate that helping behaviors may detract from performance that is more independent than team oriented (e.g., batting vs. fielding), but only in softball teams (see Figure 2).

DISCUSSION

Our main research hypotheses stated that OCB would be positively related to team performance and that task interdependence would moderate the effects of OCB on team performance. The analyses examining the effects of ratings of OCB—helping, civic virtue, and sportsmanship—on team performance yielded some significant results supporting these hypotheses. However, there also emerged some differences between tennis and softball teams in the strength and direction of these relationships.

We first conducted bivariate correlations to examine direct relationships between OCBs, team cohesiveness, transformational leadership, athlete satisfaction, and performance. Team cohesiveness demonstrated significant positive relationships with helping behavior and sportsmanship. Furthermore, the relationships between OCBs and other variables (team cohesiveness, transformational leadership, and athlete satisfaction) were generally stronger than those between OCBs and hard measures of performance. One explanation for these results is that

team cohesiveness, transformational leadership, and athlete satisfaction are antecedents of OCB (Podsakoff et al., 2000), and therefore have stronger relationships with OCB compared to performance. Another is that sport performance is variable and depends on a combination of these variables working in conjunction with each other as opposed to just one standing alone. Although the aforementioned variables had stronger relationships with OCB, a couple of them did demonstrate notable relationships with a subset of performance outcomes. Helping behaviors and group cohesiveness were both associated with high task interdependence performance outcomes. That is, the more helping behaviors a team shows as a whole, or the more cohesiveness the team is, the better the team is expected to perform on tasks that require more coordination among its members (i.e., fielding, doubles matches). These are promising findings for establishing a relationship between helping behaviors and aspects of team performance.

Research has shown that OCBs are related to performance, though evidence is stronger for some forms of OCB (i.e., helping) than for others (i.e., civic virtue and sportsmanship). As expected, helping behavior was generally the strongest predictor of the three types of OCB in all of the analyses. In addition, this relationship was moderated by task interdependence. Contrary to predictions, the simple slope tests investigating this interaction indicated that helping behavior was negatively related to team performance in softball teams. The relationship was positive in tennis teams, though not significant. Research has shown that the direction of the OCB–performance relationship is not always consistent. For example, Podsakoff and MacKenzie (1994) found that helping behavior decreased performance in a sample of insurance agency units, whereas Podsakoff et al. (1997) found that it increased performance in a sample of paper mill work crews. One explanation for this difference is that the insurance sales agents were compensated on the basis of their individual performance, whereas the compensation for the paper mill work crews was based on team performance. Therefore, it stands to reason that the paper mill work crews would be more inclined to provide help to their peers compared to the insurance sales agents.

In the current study, tennis was originally classified as less interdependent than softball, but this general classification may be too simplistic. Sports are multifaceted and can consist of both independent and interdependent tasks. In this case, softball includes both batting, which is more independent, and fielding, which is more interdependent. Along the same lines, tennis includes singles matches and doubles matches, the former task being more independent than the latter. Softball, as a sport, could be considered more interdependent than tennis in the sense that the team members must rely on each other more to function effectively. In addition, the positions are more differentiated in softball than they are in tennis. Therefore, helping behaviors may translate differently across sports. In tennis, the same set of skills underlies performance in singles and doubles matches. A primarily doubles player could help a singles player via practice, coaching, and so on, and a singles player could help a doubles player. In softball, there is also a basic set of skills that all players must have, which includes the ability to hit, field, and throw. However, there are slightly different skill requirements among positions. For example, fielding in the dirt infield requires different techniques than fielding in the grassy outfield. When the positions become even more specific (pitcher and catcher), it is unlikely that an outfielder could help a pitcher in her skill development, and vice versa. The transferability of skills among athletes is more fluid in tennis than in softball.

The follow-up analyses examining the OCB relationship with a low task interdependence performance composite and a high task interdependence composite indicated that helping behaviors may detract from performance that is more independent than team oriented (e.g., batting vs. fielding), but only in softball. This is consistent with research conducted by Bachrach,

Powell, Collins, and Richey (2006) and Nielsen, Bachrach, Sundstrom, and Halfhill (2012) that demonstrated positive relationships between OCB and group performance under high task interdependence situations and neutral to negative OCB-performance associations for task-independent groups. These results imply that OCB can amplify performance in task-interdependent groups but diminish performance for task-independent groups due to the time cost of these behaviors. Perhaps this is the case in softball, because only one athlete can be batting at a time. Therefore, if an athlete is helping her teammate(s) with batting practice (e.g., pitching balls to the batter), she cannot simultaneously be practicing her own batting. That is, the time allocated to helping her teammates detracts from time spent on her own skill development. In tennis, teammates simultaneously practice their skills (e.g., serving back and forth on either side of the net). Interdependence of a specific task, as well as the nature of the task, within sport may play a role in the relationship between helping behaviors and performance.

Items on the Helping Behavior subscale touch on the aforementioned aspects (helping teammates in practice, sharing expertise, giving time to teammates, etc.), but they also touch on less tangible aspects such as encouraging teammates when they are down and offering help to teammates when there are disagreements. Thus, the differential results between tennis and softball teams cannot be entirely explained by differences in sport. The differences between organizational and sport teams might shed some light on these results. Increased motivation in an organization generally translates to improved performance, whereas in sports, it does not always translate into better performance. For example, batters will go through "slumps." Due to the degree of unpredictability in sports, helping behaviors may not directly translate into better performance, or the relationship may not be as strong.

Limitations and Future Directions

Although the results are interesting, there are a number of aspects of the current study that may limit the generalizability of the results. For one, ratings of OCB were self-reported and could be potentially biased. To account for this, athlete's OCB was also measured from the perspective of her respective coach. Although the coach's rating was also included as an additional rating of athlete's OCB, it was one overall single-item rating of OCB rather than separate ratings of helping behavior, civic virtue, and sportsmanship. Because of this, it was excluded from the analyses. When the coach's ratings of athletes' OCB were excluded from the analyses, the pattern of results remained the same. Future studies might address this limitation by having a third party observe the athletes and provide full ratings. Other potential limitations stem from the low response rate and subsequent small sample size. More than 200 teams were invited to participate in the study, and only 40 agreed to participate. The low response rate presents potential bias if coaches were more likely to volunteer if their teams tended to be more cohesive, or more skilled. In the current sample, independent *t* tests indicated that softball and tennis did not differ significantly on team cohesiveness or performance. Future research should recruit a greater number of teams and athletes to avoid this bias. In addition, the current study examined the OCB–performance relationship exclusively in women's sport teams. Because men's sport teams may exhibit differing levels of OCB compared to women's teams, there are potential gender differences in the OCB–performance relationship. Gender could be considered as another potential moderator in future studies.

The limited performance statistics available for tennis was another limitation of the study. Ideally, the public record of available tennis statistics would have included more performance measures such as unforced errors, percentage of first serves, number of double faults, break points won/lost, and so on. Unfortunately, the available statistics across tennis teams only

included win–loss records for singles and doubles matches. Performance outcomes were standardized to account for this difference (see Footnote 2). However, future research could account for this by including other more independent sports (e.g., golf, swimming, track and field) that track individual measures of performance (e.g., times for swimming and track, scores for golf).

Although tennis was defined as less interdependent than softball (particularly for singles play), there may be sports considered even less interdependent than tennis (e.g., golf, swimming, track and field). In addition, there are many sports that would be rated higher on interdependence than softball. On a continuum of independent to interdependent sports, softball and tennis may fall closer to the middle. Thus, the negative effect of helping behavior on performance may be somewhat specific to softball as a sport. The fact that only one player can bat or pitch at a time is different than, for example, basketball or soccer, where multiple players can fulfill each role almost simultaneously. Additional research should investigate the OCB–performance relationship in team sports that are more interdependent (e.g., basketball, rowing, soccer) to determine if greater interdependence increases the effects of OCBs. Overall, future research should assess the role of OCBs in other sport contexts to see if their effects vary by type of sport, tasks within sport, and position played within sport.

Conclusions

Despite the limitations, the results from the present study provide a foundation on which to further examine how team citizenship behaviors apply to the sports world. For one, utilizing real teams and athletes is important for understanding how OCB operates. In addition, measuring these behaviors at the preseason could be invaluable for preparing teams to perform optimally during the season. If coaches can assess how their teams rank on these behaviors and when these behaviors are helpful, they can better focus their efforts. For example, softball coaches could provide extra assistants during batting practice so that players are not losing time developing their own skills by helping out a teammate. And for tasks that are more interdependent, coaches can encourage athletes in similar positions (outfielder, doubles match player) to work together to improve their skill set. Understanding how, when, and why OCB improves team performance can offer both sport teams and organizational teams an edge to their opposition.

FOOTNOTES

[1]Softball was chosen as the high interdependent sport because one of the authors had access to softball coaches and players due to previous team participation. Women's tennis was then chosen as a comparison sport because it would be less interdependent than softball. In addition, both sports play a spring season.

[2]To examine whether there are differential relationships between OCBs and different performance variables (i.e., overall team win–loss percentage vs. team performance composite), we conducted the analyses with overall win–loss percentage as the performance outcome variable and results demonstrated similar patterns to the analyses conducted with the team performance composite. However, using the win–loss percentage as performance outcome attenuated the results, which may indicate that overall win–loss percentage provides a less than accurate picture of team performance compared to the team performance composite used in the present analyses.

[3]Complete results of the factor analyses are available upon request.

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