

Why Ref? Understanding sport officials' motivations to begin, continue, and quit

David J. Hancock^{1*}, Donald J. Dawson², & Denis Auger³

1 – Indiana University Kokomo, Indiana, USA; dahancoc@iuk.edu

2 – University of Ottawa, Ontario, Canada; ddawson@uottawa.ca

3 – Université du Québec à Trois-Rivières; denis.auger@uqtr.ca

* Corresponding Author

2300 S Washington St., Hunt Hall #106C
Indiana University Kokomo
Kokomo, IN, 46904
765-455-9234
dahancoc@iuk.edu

Abstract

With attrition rates of 30% (Deacon, 2001), organizations need to understand sport officials' motivations to become and remain officials rather than quit. The purpose of this study was to assess these motivations. Using questionnaire data from an existing survey, we categorized participants ($N = 514$) as interactors, monitors, and reactors (MacMahon & Plessner, 2008). Sport officials were motivated to begin officiating for intrinsic and for the sport reasons. For continuing officiating, participants cited intrinsic and social motivations. Finally, interactors, monitors, and reactors cited lack of respect, too much stress, and lack of recognition, respectively, as their main beliefs for why sport officials quit. Practical recommendations are provided, which might assist sport governing bodies in recruiting and retaining sport officials.

Keywords: interactors, monitors, reactors, referees

This work was previously presented at a scientific conference:

Date: November, 2012

Place: Halifax, Nova Scotia, Canada

Conference: Canadian Society for Psychomotor Learning and Sport Psychology

I, the undersigned main author, certify that the manuscript of the article entitled "Why Ref? Understanding sport officials' motivations to begin, continue, and quit", was neither published and is not currently submitted for publication elsewhere.

A handwritten signature in black ink, appearing to be 'D. M. S.', written in a cursive style.

November 14, 2014

Introduction

In sport, researchers have dedicated attention to understanding developmental pathways and trajectories of sport participants. Included in this research is evidence of athletic success through early specialization (Baker, Cobley, & Fraser-Thomas, 2009; Ford Ward, Hodges, & Williams, 2009), early sampling (Côté, 1999; Soberlak & Côté, 2003), and deliberate practice (effortful engagement with the primary purpose of improving performance; Helsen, Starkes, & Hodges, 1998; Hodges & Starkes, 1996). Unsurprisingly, social agents (e.g., parents, siblings, and coaches) often influence developmental pathways. For instance, an older sibling who has had success in soccer might impact a younger sibling's decision to play soccer (Côté, 1999). Similarly, developmental pathways have been documented in coaches. Frequently, coaches assume leadership roles during their playing careers, then transition into assistant and head coaching positions (Bloom, Durand-Bush, Schinke, & Salmela, 1998; Gilbert, Côté, & Mallett, 2006). Understanding career progressions of athletes and coaches has helped inform sport scientists on the benefits of sport participation, as well as maximizing talent development.

Despite our knowledge of athlete and coach developmental pathways, few studies have targeted the progression of sport officials. Little is known about sport officials' motivations, such as why they begin or quit their profession, which is vital for understanding this important sport participant. Though plenty of literature exists on sport officials, researchers have primarily focused on officials' stressors (Anshel & Weinberg, 1999; Dorsch & Paskevich, 2007; Rainey, 1995; Rainey & Hardy, 1999), physiological demands (Helsen & Bultynck, 2004; Weston, Castagna, Helsen, & Impellizzeri, 2009), biases (Balmer, Nevill, & Lane, 2005; Findlay & Ste-Marie, 2004; Ste-Marie, Valiquette, & Taylor, 2001), and decision-making (Catteeuw, Gilis, Jaspers, Wagemans, & Helsen, 2010; Gilis, Helsen, Catteeuw, van Roie, & Wagemans, 2009).

The extant literature on sport officials' motivations provides some insights, but also highlights limitations in the field. Taylor and colleagues (Taylor, Daniel, Leith, & Burke, 1990), for example, linked soccer officials' ($N = 529$) stressors with burnout and intention to terminate. The authors reported fear of failure and interpersonal conflict (amongst others) as indirect factors leading to termination. While this was a valuable first step in understanding sport officials' pathways, the authors targeted termination and did not consider the impetus for beginning officiating. Similarly, VanYperen (1998) identified that commitment scores could accurately predict volleyball referees ($N = 326$) that continued as opposed to quit. Again, this information is beneficial, but does not describe the full picture of sport officials' developmental pathways.

One study that began to assess motivation was Scott and Spinks (2002). Here, the authors noted that professional ice hockey referees scored higher on dominance, optimism, and arousability – concepts that were connected to high motivation – than their amateur counterparts. The authors, however, compared referees ($N = 180$) from the National Hockey League and Australian amateur leagues. The use of a highly expert group limits the generalizability of these findings, as most sport officials do not acquire such expertise. Further, the authors did not track motivations to begin as ice hockey referees – merely continued participation. Gray and Wilson (2008) also conducted a study on motivation to continue officiating. Herein, the authors found that track and field officials' ($N = 80$) perceived relatedness predicted motivation to continue officiating. Once again, this is important knowledge to the sport officials community, but does not present a complete account of the process of beginning, continuing, and quitting officiating.

More recently, researchers (Auger, Fortier, Thibault, Magny, & Gravelle, 2010) conducted a profile assessment on sport officials ($N = 469$) from 16 sports, with the specific purpose of understanding motivations, expectations, and perceptions of officiating. Additionally,

the authors were able to draw conclusions regarding officials' motivations to begin, continue, and quit. Primary reasons to begin, continue, and quit included for the love of the sport, to feel satisfied, and family/work, respectively. Auger and colleagues (2010) study shed some light on sport officials' developmental pathways, but was limited in that the authors only reported descriptive values, not univariate statistics. Additionally, further attention is required to generate a more complete understanding of motivations that assesses broad motivational themes (e.g., grouping intrinsic motivators together), as well as investigating motivational differences across sports – not simply delineating between team and individual sports. Thus, we attempted to examine, from a practical perspective, officials' sport-specific motivations to begin, continue, and quit their avocation.

Understanding the evolving motivations that guide sport officials' careers is an important endeavor for sport scientists given the difficult nature of officiating. There are several challenges for sport officials during a match – they must be physically fit (Leicht, 2008), make split-second decisions (MacMahon, Helsen, Starkes, & Weston, 2007), have extensive rule knowledge (MacMahon & Plessner, 2008), communicate with athletes and coaches (MacMahon & Plessner, 2008), and deal with tremendous pressure and scrutiny (Lehman & Reifman, 1987; Nevill, Balmer, & Williams, 2002). Certainly, sport officiating is not an easy avocation. As such, it is important not only to outline the skills that sport officials possess (as has been done with previous research), but also to detail why an individual would be motivated to become an official, continue with the profession, and eventually quit their trade.

From a practical standpoint, reasons for understanding sport officials' progression and motivations relate mainly to attrition rates and a declining pool of officials in several sports. Deacon (2001), for instance, reported that annually, 30% of Canadian ice hockey referees quit.

This is a startling attrition rate considering that Canadian ice hockey referees officiate youth sport – an environment that supposedly promotes safe and fair competitive opportunities for players, coaches, and officials. Similarly, VanYperen (1998) noted that the annual attrition rate for referees in the Dutch Volleyball Association was 20%. This attrition rate in two distinctly different sports and contexts signifies a pervasive concern. To date, youth sport dropout researchers typically focus on athletes, but, based on the above examples, we believe that understanding dropout for sport officials is also important.

Focusing only on sports officials' dropout rate, however, would not provide an accurate or complete depiction of sport officials' careers. Illustrating this, identifying that sport officials drop out for financial reasons would not be meaningful without understanding why officials began and continued officiating in the first place. If their motivations to begin officiating were financial, then it would make sense that they might also quit officiating due to finances. Furthermore, by identifying sport officials' motivations to begin and continue refereeing, perhaps more sport officials can be recruited and retained to help ease the burden of a declining sport officials' talent pool (National Association of Sport Officials, 2001). Consequently, to provide a more comprehensive understanding of sport officials' careers, we detailed motivations to begin, continue, and quit officiating. Herein, we elected not to implement models such as the Sport Commitment Model (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993), because although this and other similar models reflect sport participants' likelihood of terminating their participation, the models do not encompass reasons to begin or continue in sport.

Importantly, officials in different sports have varying responsibilities, objectives, and possibly, motivations. Thus, we distinguished the different types of sports officials for our project – a unique method for studying officials' motivations. MacMahon and Plessner (2008)

outlined three types of sport officials: interactors, monitors, and reactors. Interactors attend to several cues during an athletic performance and have a high level of interaction with athletes as they are typically in the field of play. Interactors often include basketball, soccer, and ice hockey referees. Monitors are sport officials who attend to several cues during an athletic performance and assess the quality of a performance, but have limited, if any, interaction with athletes. Examples of monitors include gymnastic or figure skating judges. Finally, there are reactors, who have few responsibilities (in terms of number, not magnitude) and limited interaction with athletes. An example of a reactor is a tennis line judge whose role is to decide if a ball is hit in or out of bounds. In the current study, we analyzed data on all three types of sport officials, which gave us the ability to identify any differences based on sport type.

Thus, the purpose of our investigation was to examine interactors', monitors', and reactors' motivations to become officials, continue as officials, and quit officiating. Using a practical approach, we hoped to offer recommendations that would result in elevated recruitment and retention of sport officials. As outlined above, there is little research in this field tracking sport officials' development from beginning to end, and none comparing interactors, monitors, and reactors. This makes generating hypotheses incredibly difficult. Therefore, we refrained from making specific hypotheses, but generally expected the three types of sport officials to have different motivations to begin, continue, and quit, due to their differing sports.

Method

The present report represents a secondary analysis of data collected in 2005, which was initiated by *Sports-Québec*, the association of sport federations that represents and supports 63 sport federations in the Canadian province of Quebec. The survey targeted sport officials, and attempted to understand their backgrounds and motivations in order to gain useful information

for recruiting and retaining officials. The original data collection procedures, recruiting process, and initial results were reported by Auger and colleagues (2010), but are restated herein.

Participants

A sample of 18 federations (alpine skiing, archery, badminton, baseball, basketball, figure skating, football, ice hockey, judo, nordic skiing, ringette, rowing, soccer, swimming, synchronized swimming, taekwondo, volleyball, and wrestling) willing to participate in the study was chosen. Each federation supplied a list of active and inactive (when possible) sport officials, resulting in a list of greater than 9,000 officials. Auger and colleagues (2010) randomly selected 50 sport officials from each federation for recruiting. In the case of badminton and rowing, which had fewer than 50 officials, all officials were recruited. Additionally, 10% of the total number of sport officials in each federation was added to the original 50. For example, 310 ice hockey referees were recruited for the study. This number included the first 50 selected plus 260 more that represented 10% of the 2,600 referees on the list provided by the Quebec ice hockey federation. Following this procedure, 1,616 questionnaires were mailed to sport officials across Quebec. A reminder was sent a month later. A total of 514 completed questionnaires were returned for a response rate of 31.8%.

Of the 514 surveys that were analyzed, 425 (82.7%) participants were active officials, while 89 (17.3%) classified themselves as inactive. The average amount of experience was 9.6 years ($SD = 9.2$ years) with a maximum of 51 years as an official. First-year officials comprised 5.1% ($n = 26$) of the sample. Males accounted for 69.6% ($n = 358$) of the respondents and the mean age of the surveyed officials was 36.3 years (range: 14-76 years; $SD = 15.3$ years).

Officials were divided into three categories: interactors (baseball, basketball, football, ice hockey, judo, ringette, soccer, and wrestling officials); monitors (badminton, figure skating,

synchronized swimming, taekwondo, and volleyball judges); reactors (alpine and nordic skiing, archery, rowing, and swimming officials). Interactors made up 59.9% ($n = 308$) of the sample, while monitors and reactors represented 24.3% ($n = 125$) and 15.8% ($n = 81$), respectively.

Measures

The original research team (Auger et al., 2010) was approached by *Sports-Québec* to conduct the province-wide survey, which aimed to understand sport officials' motivations for participation. First, a literature review was conducted to generate an initial pool of potential survey questions, with the model forwarded by Thibault and Fortier (2003) serving as a primary resource. Next, focus groups with sport officials were conducted in locations across Quebec to assist in the development of the survey instrument. Afterwards, pilot testing was completed with 30 sport officials. This led to further refinement of the survey instrument items, and ultimately, a 35-question survey targeting sport officials' reasons for beginning, continuing, and quitting as officials. Final approval of the instrument was granted by *Sports-Québec*.

For the present study, it became apparent that the survey questions could be grouped into broad motivational themes that met face validity. The first and second authors engaged in this process, the outcome of which is described below. The creation of these broad categories allowed for a more direct, succinct analysis.

Beginning. Participants responded to a series of questions concerning what originally motivated them to become sport officials (each question was rated on a scale of 1 to 4 from “*not motivating*” to “*very motivating*”), which were grouped into intrinsic, extrinsic, sport related, and social reasons. Intrinsic reasons included to prove that one could do it, personal development, enjoyment, and passion for one's sport. Financial remuneration, recognition by others, and the exercise of influence and power made up the extrinsic reasons category. Sport related reasons

encompassed being active in and serving their sports, responding to a need in their sports, and to promote their sports. Social reasons involved meeting people and making friends, living new experiences, and integrating in one's social setting.

Continuing. Similarly, participants were asked about what motivated them to continue as sport officials (each question was rated on a scale of 1 to 4 from “*not motivating*” to “*very motivating*”), which were also grouped into intrinsic, extrinsic, sport related, and social reasons. Regarding continuing as sport officials, intrinsic reasons were made up of feelings of personal growth, competence, meeting challenges, and enjoying being officials. Extrinsic reasons included receiving thanks, gaining respect, receiving an appropriate salary, and the possibility of advancement. Regarding service to the sport, reasons to continue involved feeling useful, being supported, and having a sense of obligation to stay on as an official. Social reasons incorporated a sense of being “in on what's going on” within one's group of officials, a sense of belonging to one's group of sport officials, and working in a friendly environment.

Quitting. Finally, respondents were asked what they thought were the main reasons that led sport officials to quit (each question was rated on a scale of 1 to 4 from “*completely disagree*” to “*completely agree*”). For intentions to quit, eight categories were evident: (1) partnership (officials feeling that they are not treated by coaches, players, and others as “partners”); (2) respect (officials are not respected by coaches, players, and spectators); (3) recognition (officials are not given recognition by their respective associations, the public, or the media – they are increasingly taken for granted); (4) belonging (officials are experiencing less feelings of belonging and integration, resulting in greater turnover of officials); (5) finances (officials' pay is not high enough while their costs are too high); (6) support (officials are not sufficiently supported by their associations or leagues); (7) stress (the role of official is

increasingly demanding and stressful; many officials experience burnout); and (8) time (officials lack time; their schedules are not flexible; family and work obligations restrict availability).

Data Analysis

Following survey collection, we then categorized the results (using the mean score of the composite items) into the aforementioned groupings. Consequently, a series of one-way analysis of variance (ANOVA) tests and paired *t*-tests and were conducted to examine between- and within-group differences amongst sport officials on their motivations to begin, continue, and quit. These data provide an extension of the work completed by Auger and colleagues (2010).

Results

We began by testing between-group differences. Using a one-way ANOVA, we examined motivations to begin officiating, noting three significant ($p < .05$ for all) between-group differences (see Table 1). Specifically, differences between categories of officials existed for intrinsic, extrinsic, and social reasons. Scheffe's post-hoc procedure indicated that interactors began officiating more for intrinsic reasons than did monitors (Mean Difference = 0.35, $p < .001$) and reactors (Mean Difference = 0.51, $p < .001$). There was no significant difference in beginning to officiate for intrinsic reasons between monitors and reactors. The pattern was identical for extrinsic and social reasons to begin officiating. Interactors began officiating more for extrinsic reasons than did monitors (Mean Difference = 0.40, $p < .001$) and reactors (Mean Difference = 0.61, $p < .001$), while there was no significant difference in beginning to officiate for extrinsic reasons between monitors and reactors. As for social reasons to begin officiating, interactors began officiating more for social reasons than did monitors (Mean Difference = 0.23, $p < .02$) and reactors (Mean Difference = 0.31, $p < .01$). There was no significant difference in beginning to officiate for social reasons between monitors and reactors.

Next, we compared participants' motivations to continue officiating by implementing a one-way ANOVA. Significant between-group differences ($p < .05$ for all) were again identified for intrinsic, extrinsic, and social reasons to continue officiating between interactors, monitors, and reactors (see Table 1). Scheffe's post-hoc procedure indicated that interactors continued officiating more for intrinsic reasons than did monitors (Mean Difference = 0.37, $p < .001$) and reactors (Mean Difference = 0.45, $p < .001$). There was no significant difference in continuing to officiate for intrinsic reasons between monitors and reactors. With respect to continuing to officiate for extrinsic reasons, interactors did so more than monitors (Mean Difference = 0.33, $p < .001$) and reactors (Mean Difference = 0.68, $p < .001$). In turn, monitors continued to officiate for extrinsic reasons more than reactors (Mean Difference = 0.35, $p < 0.01$). Though the ANOVA yielded significant results for social reasons, post-hoc tests found no differences between the categories of officials.

The third step in the data analysis (using paired-samples, two-tailed t -tests) was comparing within-group differences for motivations to begin and continue officiating. Starting with interactors, significant changes in motivations ($p < .05$ for all) were noted for beginning and continuing officiating. Specifically, extrinsic and social motivations became more important to interactors, while for the sport reasons became less important (see Table 2). For monitors and reactors, we discovered an identical pattern ($p < .05$ for all) whereby extrinsic and social reasons were rated as more motivating to continue officiating, but for the sport reasons were scored as less important for continuation. Overall, intrinsic motivations did not change from beginning to continuing. Another interesting finding is that all groups of officials cited for the sport (rated first by monitors and reactors; second by interactors) and intrinsic reasons (rated first by interactors; second by monitors and reactors) as their top motivations for beginning as officials.

However, these motivations changed to intrinsic (rated first by all groups) and social reasons (rated second by all groups) as the main explanation for why participants continued officiating.

Our final analysis examined participants' beliefs for the reasons officials quit. As the categories used for the motivations to quit officiating were different than motivations to begin and continue, only between-group comparisons were made herein. ANOVA results revealed significant group differences ($p < .05$) for respect, partnership, belonging, support, time, and finances, with stress approaching significance (see Table 3). The greatest differences were for lack of respect. Scheffe's post-hoc procedure indicated that interactors felt lack of respect was more of a reason to quit than did monitors (Mean Difference = 0.58, $p < .001$) and reactors (Mean Difference = 0.86, $p < .001$). As well, monitors felt that officials quit more often due to a lack of respect than did reactors (Mean Difference = 0.28, $p < .04$). With respect to feeling one was not sufficiently treated as partner in one's sport, interactors believed this contributed to quitting more so than did monitors (Mean Difference = 0.29, $p < .001$) and reactors (Mean Difference = 0.40, $p < .001$), but no other differences were identified. Despite belonging being statistically significant, no between-group differences were noted in the post-hoc test. Interactors cited lack of support as a reason for officials to quit more than reactors (Mean Difference = 0.22, $p < .03$); however, no significant differences were found between interactors and monitors or between monitors and reactors. Quitting because of time constraints was cited more by monitors than interactors (Mean Difference = 0.28, $p < .001$) and reactors (Mean Difference = 0.23, $p < .01$), while there was no significant difference in quitting officiating due to time constraints between interactors and reactors. Lastly, Scheffe's post-hoc analysis showed that interactors believed that finances played a greater role in quitting than did monitors (Mean Difference =

0.31, $p < .001$) and reactors (Mean Difference = 0.34, $p < .001$), though there was no significant difference between monitors and reactors.

Discussion

This paper outlines motivations for why officials begin, continue, and quit their avocation. Contrary to our general hypothesis that the three categories of sport officials would have different motivations, we found that all sport participants began officiating for intrinsic and for the sport reasons, and that they continued in the sport for intrinsic and social reasons. Clearly intrinsic motivation is important to sport officials regardless of sport type, and perhaps this should not be surprising. That is, since officiating is voluntary, officials are likely to be intrinsically motivated to do it; otherwise they simply would not register to join the sport. For motivations to quit, however, our hypothesis that sport officials would differ in their motivations was supported. Specifically, interactors cited lack of respect, monitors stated too much stress, and reactors noted a lack of recognition as the primary motivations to quit. We had expected participants to have differing motivations to quit, largely due to the fact that their roles also differed. Refereeing an ice hockey game (interactor), for example, in front of 500 fans, coaches, and players can often result in the referee becoming the focal point in a game, because his or her judgments (i.e., assessing no foul, a two-minute penalty, or a five-minute penalty) can significantly impact the outcome. On the other hand, a swimming timer (reactor) does not have this same focal attention from others, likely because he or she is making concrete decisions, not judgments (i.e., stop the clock when the swimmer's hand touches the wall). Another interesting observation is that sport officials consistently rated finances amongst the lowest motivations for quitting. The first author, who officiated ice hockey, soccer, and baseball, can at least anecdotally attest to this. In his experience, many officials pressed governing bodies for higher

pay rates, but rarely did officials quit over finances. Thus, while remuneration might increase officials' job satisfaction (Çoban, 2010), it does not appear to influence retention.

This research is another step toward outlining a more complete depiction of career pathways and transitions for sport officials. Ideally, this knowledge can be used to maximize not only the number of officials recruited and retained by governing bodies, but also to improve the quality of officials. As this was intentionally a practical paper, in the remainder of the discussion, we outline immediate practical recommendations for sport governing bodies related to each stage of officials' developmental pathways. Concurrently, sport scientists can further research these findings to gain a better understanding of sport officials' motivations.

The first part of the pathway is recruiting officials to a particular sport. The results herein demonstrate that all officials are motivated to begin officiating for intrinsic reasons and service to the sport. Thus, our first recommendation is that sport governing bodies must focus on recruiting officials by stressing these aspects. For instance, recruiters could articulate to candidates the physical benefits, passion, and challenges that are associated with becoming an official. Furthermore, especially for those looking to officiate a sport which they previously played, recruiters should outline the importance of giving back to sport. In following this step, recruiters are likely to be more successful, resulting in a deeper talent pool of officials, which is necessary in sport (Deacon, 2001).

The second segment of the pathway is having officials continue in their sports. Here we found that officials were motivated again by intrinsic rewards, but also by social reasons rather than for the sport. Thus, we recommend that governing bodies offer officials opportunities for intrinsic and social growth. For intrinsic growth, officials ought to be provided with new challenges, such as increasing certifications or officiating important games (e.g., tournaments or

playoffs) at one's current level. Regarding social growth, it was evident that social reasons played a prominent role in officials continuing in their sports. Thus, officiating associations should look for ways to offer social activities. This could be year-end banquets, mid-season activities, and monthly meetings that have learning and social components. By adhering to this recommendation, it is more likely that officials will continue in their craft, which will generally elevate the quality of a sport organization's officiating pool.

The final aspect of the pathway is quitting, or ideally, avoiding attrition. Results of this study showed differences in motivations to quit based on sport type and, interestingly, there appears to be a tangible connection between the three cited motivations and the three types of sport officials. Starting with interactors, the most cited reason for quitting was a lack of respect from non-officials. Our interactors included participants from baseball, soccer, and ice hockey, to name a few – sports where it would not be surprising to see a lack of respect manifested as verbal (and sometimes physical) abuse from coaches, athletes, and parents (Dorsch & Paskevich, 2007). In fact, Rainey and colleagues discovered that 11% of sampled umpires (Rainey, 1994) and 13% of sampled basketball referees (Rainey & Duggan, 1998) experienced some form of physical abuse. Undoubtedly this would be difficult to cope with, and, compounded with other stressors (Rainey & Hardy, 1999), could lead many officials to quit (especially young referees). Therefore, it is important to identify through research how, exactly, this lack of respect manifests. In the meantime, our third recommendation is to have workshops or meetings for coaches, athletes, parents, and officials to jointly attend. At these meetings sport organizers could outline the expectations and roles of each person at the meeting in an effort to create rapport amongst all parties. Furthermore, by personalizing sport officials, this might help increase communication and understanding from coaches, athletes, and parents during game

situations. The first author has been involved in such meetings and again, can anecdotally support the fact that they are generally positive and helpful. Possibly, these measures could prevent the currently steep attrition rate in officials.

The next group is monitors, who included, amongst others, synchronized swimming judges, figure skating judges, and taekwondo judges. This group of officials stated that stress was their biggest motivator to quit. Future researchers could certainly investigate this further to identify exactly what the source of stress might be. Plausibly, it is related to the actual task of judging, which is incredibly difficult. In figure skating, for example, judges must know different jumps, lifts, techniques, and degree of difficulty, but they must also assess the quality of these maneuvers in a short period of time (Ste-Marie, 1999). Compounding this is the fact that a one-tenth difference in scores could be the difference between a gold and silver medal. Fittingly, stress is an issue for sport monitors as every decision they make can have a significant impact on the final outcome. Based on this, our fourth recommendation is that sport monitors receive stress management and sport psychology training from their associations in order to develop mental toughness and coping mechanisms to deal with such an avocation. In doing so, monitors might see a reduction in stress and possibly lead to less burnout and attrition tendencies, though other stressors should also be identified.

The final group is reactors, of which, some of our participants were drawn from skiing, swimming, and rowing. When considering these sports, the possibility exists that many athletes, coaches, and spectators pay little attention to the officials. As such, it is appropriate that monitors expressed a lack of recognition as their main motivation to quit. Therefore, our fifth recommendation for sport associations is to recognize their reactors. This could simply be a photograph in a newspaper, or more formally, recognition at an awards banquet or annual

meeting. Avenues for how to best recognize sport monitors ought to be investigated, but regardless, this might curtail attrition rates in these sports.

We believe this paper offers unique insights, though there are some limitations. First, discretion ought to be used when generalizing these results from the regional sample described herein, to other sport official populations. Sport, and the culture surrounding it, likely varies across regions. Therefore, the experiences of one subset of officials might not be analogous to other samples. A second limitation is the categorization of officials. Recently, researchers have brought forth a new classification of officials: those in team sports, fighting sports, and racquet sports (Dosseville, Laborde, & Bernier, 2014). Though MacMahon and Plessner's (2008) classifications do not perfectly capture the intricacies of sport officials' roles, it is also evident that Dosseville and colleagues' (2014) categories are not without flaw (e.g., swimming officials would be unclassified). Thus, researchers must choose the best categorizations for their specific studies, but also should recognize the limits of these classifications. Despite these limitations, we are confident that the findings of this paper can be useful at a practical and theoretical level.

Conclusion

Taking a practical perspective, we have outlined several key variables to explain sport officials' motivations to begin, continue, and quit their avocation. For instance, we now know that sport officials are motivated to begin and continue officiating because of intrinsic, rather than extrinsic, rewards. We also understand that reasons for quitting vary between interactors, monitors, and reactors. These findings ought to help sport governing bodies with recruiting and retaining their officials. To assist sport governing bodies, we have offered five recommendations that can be incorporated to improve sport officials' recruitment and retention: (1) Stress intrinsic values and for the sport reasons to recruit officials; (2) Outline intrinsic values and social reasons

for retaining officials; (3) Create methods to increase respect amongst coaches, players, spectators, and interactors; (4) Identify sources of stress and train monitors to appropriately cope with stress; and (5) Recognize the achievements of reactors. We believe that by identifying these motivations, sport governing bodies can now recruit and retain more sport officials. Meanwhile researchers can conduct in-depth investigations (e.g., interviews) with sport officials to gain a deeper understanding of their motivations as they relate to retention and attrition.

References

- Anshel, M. H., & Weinberg, R. S. (1999). Re-examining coping among basketball referees following stressful events: Implications for coping interventions. *Journal of Sport Behavior, 22*, 141-161.
- Auger, D., Fortier, J., Thibault, A., Magny, D., & Gravelle, F. (2010). Characteristics and motivations of sports officials in the province of Québec. *International Journal of Sport Management, Recreation & Tourism, 5*, 29-50.
- Baker, J., Cobley, S., & Fraser-Thomas, J. (2009). What do we know about early sport specialization? Not much! *High Ability Studies, 20*, 77-89.
- Balmer, N. J., Nevill, A. M., & Lane, A. M. (2005). Do judges enhance home advantage in English championship boxing? *Journal of Sports Sciences, 23*, 409-416.
- Bloom, G. A., Durand-Bush, N., Schinke, R. J., & Salmela, J. H. (1998). The importance of mentoring in the development of coaches and athletes. *International Journal of Sport Psychology, 29*, 267-281.
- Catteeuw, P., Gilis, B., Jaspers, A., Wagemans, J., & Helsen, W. (2010). Training of perceptual-cognitive skills in offside decision making. *Journal of Sport & Exercise Psychology, 32*, 845-861.
- Çoban, B. (2010). An evaluation of the job satisfaction levels of Turkish provincial football referees. *Social Behavior and Personality, 38*, 1153-1166.
- Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist, 13*, 395-417.
- Deacon, J. (2001, March 26). Rink rage. *Maclean's*, 20-24.

- Dorsch, K. D., & Paskevich, D. M. (2007). Stressful experiences among six certification levels of ice hockey officials. *Psychology of Sport and Exercise, 8*, 585-593.
- Dosseville, F., Laborde, S., & Bernier, M. (2014). Athletes' expectations with regards to officiating competence. *European Journal of Sport Science, 14*, S448-S455.
- Findlay, L. C., & Ste-Marie, D. M. (2004). A reputation bias in figure skating judging. *Journal of Sport & Exercise Psychology, 26*, 154-166.
- Ford, P. R., Ward, P., Hodges, N. J., & Williams, A. M. (2009). The role of deliberate practice and play in career progression in sport: The early engagement hypothesis. *High Ability Studies, 20*, 65-75.
- Gilbert, W., Côté, J., & Mallett, C. (2006). Developmental paths and activities of successful sport coaches. *International Journal of Sports Science and Coaching, 1*, 69-76.
- Gilis, B., Helsen, W., Catteuw, P., van Roie, E., & Wagemans, J. (2009). Interpretation and application of the offside law by expert assistant referees: Perception of spatial positions in complex dynamic events on and off the field. *Journal of Sports Sciences, 27*, 551-563.
- Gray, C. E., & Wilson, P. M. (2008). The relationship between organizational commitment, perceived relatedness, and intentions to continue in Canadian track and field officials. *Journal of Sport Behavior, 31*, 44-63.
- Helsen, W. F., & Bultynck, J. (2004). Physical and perceptual-cognitive demands of top-class refereeing in association football. *Journal of Sports Sciences, 22*, 179-189.
- Helsen, W. F., Starkes, J. L., & Hodges, N. J. (1998). Team sports and the theory of deliberate practice. *Journal of Sport & Exercise Psychology, 20*, 12-34.

- Hodges, N. J., & Starkes, J. L. (1996). Wrestling with the nature of expertise: A sport specific test of Ericsson, Krampe, and Tesch-Römer's theory of deliberate practice. *International Journal of Sport Psychology, 27*, 400-424.
- Lehman, D. R., & Reifman, A. (1987). Spectator influence on basketball officiating. *Journal of Social Psychology, 127*, 673-675.
- Leicht, A. S. (2008). Physiological demands of basketball refereeing during international competition. *Journal of Science and Medicine in Sport, 11*, 357-360.
- MacMahon, C., Helsen, W. F., Starkes, J. L., & Weston, M. (2007). Decision-making skills and deliberate practice in elite association football referees. *Journal of Sports Sciences, 25*, 65-78.
- MacMahon, C., & Plessner, H. (2008). The sport official in research and practice. In D. Farrow, J. Baker, & C. MacMahon (Eds.), *Developing sport expertise: Researchers and coaches put theory into practice* (pp. 172-190). New York, NY: Routledge.
- National Association of Sport Officials. (2001). Conference seeks solutions to sport officials shortage. *Referee, 26*, N1-N2.
- Nevill, A. M., Balmer, N. J., & Williams, A. M. (2002). The influence of crowd noise and experience upon refereeing decisions in football. *Psychology of Sport and Exercise, 3*, 261-272.
- Rainey, D. (1994). Assaults on umpires: A statewide survey. *Journal of Sport Behavior, 17*, 148-155.
- Rainey, D. (1995). Sources of stress among baseball and softball umpires. *Journal of Applied Sport Psychology, 7*, 1-10.

- Rainey, D. W., & Duggan, P. (1998). Assaults on basketball referees: A statewide survey. *Journal of Sport Behavior, 21*, 113-120.
- Rainey, D. W., & Hardy, L. (1999). Sources of stress, burnout and intention to terminate among rugby union referees. *Journal of Sports Sciences, 17*, 797-806.
- Scanlan, T. K., Carpenter, P. J., Schmidt, G. W., Simons, J. P., & Keeler, B. (1993). An introduction to the Sport Commitment Model. *Journal of Sport & Exercise Psychology, 15*, 1-15.
- Scott, J., & Spinks, W. (2002). Motivational characteristics of amateur and professional ice-hockey officials. *Journal of Science and Medicine in Sport, 5*, S27.
- Soberlak, P., & Côté, J. (2003). The developmental activities of elite ice hockey players. *Journal of Applied Sport Psychology, 15*, 41-49.
- Ste-Marie, D. M. (1999). Expert-novice differences in gymnastic judging: An information-processing perspective. *Applied Cognitive Psychology, 13*, 269-281.
- Ste-Marie, D. M., Valiquette, S. M., & Taylor, G. (2001). Memory-influenced biases in gymnastic judging occur across different prior processing conditions. *Research Quarterly for Exercise and Sport, 72*, 420-426.
- Taylor, A. H., Daniel, J. V., Leith, L., & Burke, R. J. (1990). Perceived stress, psychological burnout and paths to turnover intentions among sport officials. *Journal of Applied Sport Psychology, 2*, 84-97.
- Thibault, A., & Fortier, J. (2003). Comprendre et développer le bénévolat en loisir dans un univers technique et «clientéliste» [Understanding and developing leisure volunteering in a technical and client-based environment]. *Loisir et Société/Society and Leisure, 26*, 315-344.

VanYperen, N. W. (1998). Predicting stay/leave behavior among volleyball referees. *The Sport Psychologist, 12*, 427-439.

Weston, M., Castagna, C., Helsen, W., & Impellizzeri, F. (2009). Relationships among field-test measures and physical match performance in elite-standard soccer referees. *Journal of Sports Sciences, 27*, 1177-1184.

Table 1

Mean scores (SD) and ANOVA results for motivations to begin and continue officiating

<i>Motivations to Begin</i>							
Motivation	Interactors	Monitors	Reactors	<i>n</i>	<i>F</i>	<i>p</i>	η^2
Intrinsic	3.20 (.57)	2.85 (.61)	2.69 (.62)	511	32.10	.000	.11
Extrinsic	2.11 (.65)	1.71 (.55)	1.50 (.45)	509	41.41	.000	.14
For the Sport	3.16 (.72)	3.17 (.67)	3.27 (.58)	513	0.83	.437	.00
Social	2.61 (.73)	2.38 (.77)	2.30 (.73)	508	7.63	.001	.03
<i>Motivations to Continue</i>							
Motivation	Interactors	Monitors	Reactors	<i>n</i>	<i>F</i>	<i>p</i>	η^2
Intrinsic	3.18 (.63)	2.81 (.80)	2.73 (.67)	501	20.98	.000	.08
Extrinsic	2.49 (.72)	2.15 (.70)	1.80 (.66)	499	31.34	.000	.11
For the Sport	2.46 (.60)	2.39 (.65)	2.41 (.66)	499	0.68	.506	.00
Social	2.85 (.77)	2.65 (.90)	2.62 (.74)	499	4.28	.014	.02

Table 2

Mean scores (SD) and paired t-test results for motivations to begin and continue officiating

<i>Interactors</i>					
Motivations	To Begin	To Continue	<i>n</i>	<i>t</i>	<i>p</i>
Intrinsic	3.20 (.55)	3.18 (.63)	303	1.28	.200
Extrinsic	2.11 (.65)	2.49 (.72)	302	-9.91	.000
For the Sport	3.16 (.71)	2.46 (.60)	301	18.14	.000
Social	2.61 (.73)	2.85 (.77)	300	-6.45	.000
<i>Monitors</i>					
Motivations	To Begin	To Continue	<i>n</i>	<i>t</i>	<i>p</i>
Intrinsic	2.85 (.61)	2.81 (.80)	124	0.72	.437
Extrinsic	1.71 (.55)	2.15 (.70)	124	-7.72	.000
For the Sport	3.17 (.67)	2.39 (.65)	124	12.21	.000
Social	2.38 (.76)	2.65 (.90)	124	-4.20	.000
<i>Reactors</i>					
Motivations	To Begin	To Continue	<i>n</i>	<i>t</i>	<i>p</i>
Intrinsic	2.69 (.58)	2.73 (.67)	73	-0.55	.583
Extrinsic	1.50 (.45)	1.80 (.61)	72	-4.00	.000
For the Sport	3.27 (.57)	2.41 (.66)	73	9.29	.000
Social	2.30 (.70)	2.62 (.74)	73	-3.18	.002

Table 3

Mean scores (SD) and ANOVA results for motivations of why officials quit

Motivations	Interactors	Monitors	Reactors	<i>n</i>	<i>F</i>	<i>p</i>	η^2
Respect	3.28 (.71)	2.70 (.81)	2.42 (.82)	504	53.87	.000	.18
Recognition	2.89 (.50)	2.81 (.52)	2.75 (.52)	505	2.57	.077	.01
Stress	2.88 (.58)	2.87 (.55)	2.70 (.49)	501	3.01	.050	.01
Partnership	2.81 (.68)	2.52 (.67)	2.41 (.62)	505	15.43	.000	.06
Belonging	2.74 (.65)	2.57 (.64)	2.59 (.58)	505	3.66	.027	.01
Support	2.69 (.67)	2.62 (.67)	2.47 (.56)	505	3.57	.029	.01
Time	2.48 (.52)	2.77 (.50)	2.54 (.50)	505	13.75	.000	.05
Finances	2.51 (.64)	2.21 (.60)	2.17 (.65)	503	15.53	.000	.06