

ORIGINAL RESEARCH

Perspectives of medical staff on the quality of communication with the head coach on injury management

Eira Nicole Ermita Buhain^{ID}, Emmanuel Liberato Ver Papa^{ID}, Christian Wisdom Magtajas Valleser^{ID}, Lissa Aireen Lesaca – Moti^{ID}

University of the Philippines, Diliman, Philippines.

Abstract

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Communication has been established to be a central component if a team needs to function well. Regarding injury management, a high collaboration quality within a team has been said to contribute to a successful program. Accordingly, good communication quality between the head coach and the medical staff was rated to be the highest contributor to a good program. On the other hand, poor communication quality has been stated to hinder an athlete's recovery. However, there were very few studies that looked into the communication between the medical staff and head coach on the management of injuries, especially in the context of Philippine sports. The purpose of this study was to examine the quality of communication between the medical staff and the head coach on injury management. The researcher utilized a qualitative research design with semi-structured interviews as the procedure for data collection. The participants of the study were four medical staff from two professional basketball teams in the Philippines-- two physiotherapists (PT) and two strength and conditioning coaches (SC). Thematic analysis was used to generate the themes. Results revealed six overarching themes: (1) constant communication of the medical staff, (2) factors influencing injury, (3) increasing player adherence, (4) continuous learning, (5) communication barriers, and (6) program evaluation. These themes indicated that although there were communication barriers, both medical staff and head coach worked together to maintain an athlete-centered approach within their coaching system. Medical staff expressed how they were pleased as head coaches displayed support, encouragement, engagement, and respect for their roles in the team. Overall, the medical staff was given the autonomy and freedom by the head coach to implement their preventive programs in order to mitigate injuries.

Keywords. Communication, injuries, medical staff, head coach.

Introduction

Prevention and management of sports injuries represent a significant challenge (Tee & Rongen, 2020) not just for athletes, but for the staff as a whole. In a team setting, the medical staff is at the frontline in addressing injury concerns. In the Philippines, a medical staff for professional and collegiate basketball teams would usually be composed of one physiotherapist (PT), one strength and conditioning

coach (SC), and one team physician. These professionals work in a multidisciplinary context in creating a comprehensive and dynamic treatment plan to reduce the risk of injury (Dijkstra et al., 2014; Roncaglia, 2016; Sporer & Windt, 2018).

Low quality collaboration from the staff, with infrequent face-to-face meetings has been suggested to contribute to mediocre injury rehabilitation (Brandon, 1996). Similarly, in a much more recent study, Ekstrand et al. (2018) enumerated the risk factors

✉ E. L. V. Papa, e-mail: evpapa@up.edu.ph

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which contribute to injuries: (1) the workload imposed on players, (2) player well-being, (3) the quality of internal communication within the team and (4) the head coach's leadership style.

In line with this, the medical staff needs to work closely with the head coach, among the other stakeholders in a team (Ekstrand et al., 2018). The head coach is said to be crucial in the implementation, compliance and reinforcement of rehabilitation and strengthening initiatives (Glass et al., 2006). Moreover, in crafting an athlete-centered program, the coaches' knowledge and attitudes regarding injuries can be significant to the whole process (Finch, 2006).

Communication between the head coach and the medical staff was stated to be the most significant finding in reducing and managing injury risk and burden (Ekstrand et al., 2018). It was speculated that a good quality of coordination throughout the rehabilitation process might provide a steady management of expectations. Accordingly, the lack of communication may interfere with the athlete's full recovery (Kraemer et al., 2009). For this reason, this paper focused on examining the perspectives of the medical staff regarding the quality of communication they have with their respective head coaches.

Methods

Instrument

This is a qualitative research which utilized a semi-structured interview. The key questions asked were based on the model developed by Van Tiggelen et al (2008). This model was developed as a guide in implementing a program focused on preventive measures. The step-by-step guide is as follows: (1) Establish the extent of the injury to the athlete concerned (2) Establishing the aetiology and mechanisms of injury. (3) Proposing a preventive

measure. (4) Establishing the efficacy of the preventive measure. (5) and (6) Establishing the efficiency of the preventive measure as well as assessing the rate of compliance and risk-taking behavior for a preventive measure, and (7) Assess the assumed effectiveness of the prevention by repeating step 1 (Figure 1).

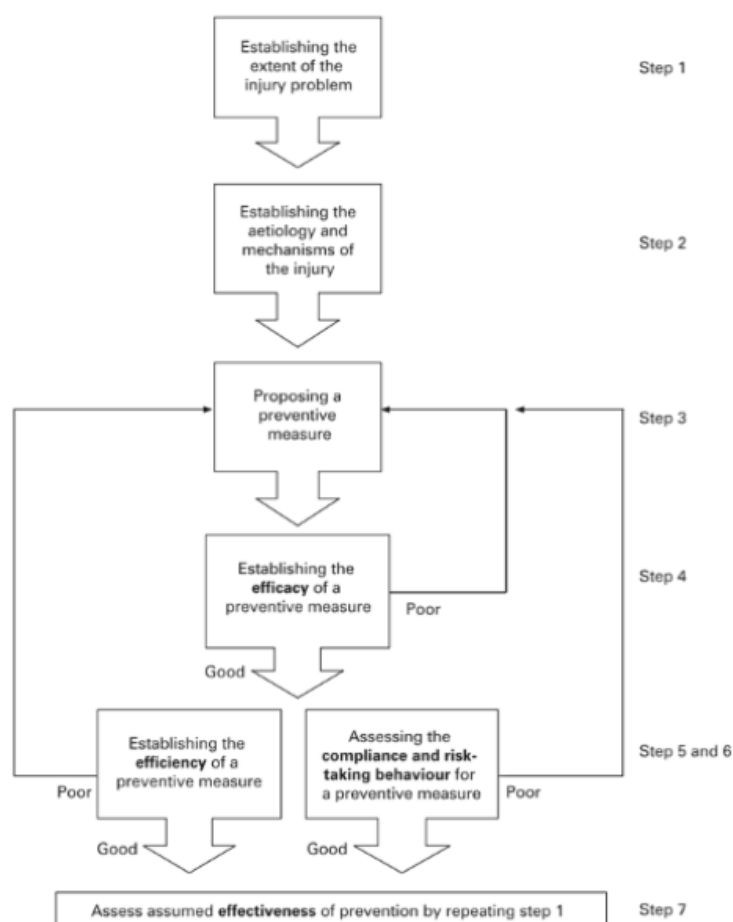


Figure 1. Van Tiggelen's model on the sequence of prevention for injuries.

Subjects

A total of four members of two professional basketball teams participated in the study. Each team was represented by one PT and one strength and one SC. The participants were gathered through convenient sampling as it was difficult to obtain participants due to unpredictable schedules. The first team (T1) consisted of Medical Staff 1A (MS1A), who is the PT of the team, and Medical Staff 1B (MS1B), who works as the SC. Similarly, the second team (T2) consisted of Medical Staff 2A (MS2A), who is the PT of the team, and Medical Staff 2B (MS2B), who works as the SC.

Procedure

The researchers sent out a consent form and a letter of invitation to the participants via email. Upon receiving their willingness and approval to participate, the main questions for the interview were sent thereafter. The interview was conducted either via video conferencing or in-person depending on the availability of the SC and PT. The researcher began the interview by asking permission from the participants if the meeting could be recorded, followed by an introduction of the researcher to the participants, a short introduction of the objectives of the study, and the explanation on the confidential nature of the research. The flow of the interview was based on the prepared main questions, and when necessary, the researcher asked to follow up questions to further expound on the topic. After the interviews have been completed, the researcher transcribed the recorded meetings. To protect the identity of the participants, the researcher labeled each respondent by number and letter instead of their real names to keep the animosity of the medical staff.

Analysis

The researcher made use of Braun & Clarke's (2006) thematic analysis to analyze the qualitative data in the form of the transcripts from the recorded interviews. This involved the authors reading the transcriptions repeatedly while taking notes throughout the process. This helped create a familiarization with the data. The authors identified the relevant components to answer the objectives of the study. The next phase was the analytic work, which involved the development of themes through the combination of codes that have similar concepts and ideas. The authors made use of an inductive approach when coding the data. This approach makes use of a "bottom up" method where the codes and themes created are based predominantly on the transcriptions (Braun & Clark, 2012). The topics, ideas, and patterns of meaning that came up repeatedly were grouped together for each objective. Themes were created based on the conceptual model of implementing an effective preventive program for sports injuries by Van Tiggelen (2013). These themes discussed how both medical staff and head coach are able to implement the preventive programs through the step-by-step model of Van Tiggelen (2013). The quality of communication between both groups naturally surfaced throughout the discussion of their

own team management processes. After which, the researcher had their thesis adviser review all the data to ensure that it was performed correctly

Results

Results of the study revealed seven major themes which exhibited the perspectives of the medical staff regarding the quality of communication with the head coach for management of injuries during the 2022 professional basketball conference. The following themes that emerged were: constant communication of the medical staff, factors influencing injury, increasing player adherence, combination of research and experience-based data, continuous learning, communication barriers, and program evaluation.

Constant Communication

Both medical staff from the two teams have the same process in establishing the extent of the injury. They communicate first between themselves before the PT relays the assessment to the head coach. It was also revealed that both medical staff would hold regular meetings whether formal or informal to update each other on details they deem significant to share with their head coach.

After the PT and SC evaluates an injury, it is the PT who coordinates immediately with the head coach. In cases of severe injuries. It is also the PT who would usually accompany the athlete for an in-person consultation with a sports doctor. During instances wherein there is a need for consultation while training is ongoing, the SC accompanies the athlete, while the PT stays with the team.

Factors Influencing Injury

In establishing the mechanism of injuries, three factors emerged. Firstly, knowing the history or background of the athlete is non-negotiable. Both medical staff have already established their own process of notetaking when it comes to the history of each athlete. Normally, this is done during the pre-season or sometimes the late off-season, a few weeks before formal training resumes.

The second factor is the personal routine of the athlete. These are instances wherein an athlete could

not commit to a strict schedule for rehabilitation because of some. This is where the medical staff assigns simple and sustainable exercise routines, which do not need strict supervision. When it comes to progressing to strength and performance exercises, the medical staff has been constantly dynamic and proactive in working around with the various schedules of each athlete.

The last factor was management of training load. According to both of the medical staff, the schedule of the games has always been one of the main considerations in managing physical and mental load on an injured athlete. It should be noted that their tournament holds two to three separate conferences within a year. This unusual format is where the coordination between the medical staff and their head coaches become strategic and more athlete-centered. They use the schedule to determine the time-frame for the return to sport (RTS) phase of an athlete.

Increasing Player Adherence

According to both of the medical staff, their respective head coaches have played a big role in encouraging the injured athletes not just in complying, but in believing in the program. They mentioned that the coaches reinforce the rehabilitation process during team huddles and during the athlete's actual sessions with the medical staff, wherein the coach would personally talk to them, encouraging both athlete and medical staff.

Continuous Learning

Both medical staff believe that being updated has kept them more confident in helping out their athletes. Previous to the start of their tournament, both medical staff were able to attend only online seminars due to the previous restrictions. MS2A added that he tried his best to stay connected with his mentors and other colleagues for consultations and sharing of experiences.

Communication Barriers

There were three factors that emerged in this study: Instances of lack of medical autonomy, Indirect communication, and Lack of player adherence.

The lack of autonomy happened when the respective head coaches decided to cut short the strengthening program for the athlete to join the scrimmages, or to be able to join the team on an actual game. Both PTs of each staff addressed this communicating with the athlete, assuring them that adjustments will be made through other rehabilitation protocols. Regarding indirect communication, MS1A and B both attributed it to "*hiya*", the Tagalog term for embarrassment, because their head coach is one of the multi-titled mentors in the league and has been a head coach for three decades already. For MS2A and B, there were instances where they had to relay their messages through the assistant coaches to avoid overwhelming their head coach.

Program Evaluation

Both medical staff gauge every program through the athlete's overall performance, reduction of injury burden, and utilization of objective tests. For the past year, their respective teams have not had any major ligament injuries, like an Anterior Cruciate Ligament (ACL) tear. Additionally, they have successfully prevented recurrences of lateral ankle sprains and patellar tendinopathy. Both of the medical staff attribute this to their consistent implementation of condition-specific pre-training routines as well as constant communication with the athlete.

Discussion

Upon occurrence of an injury, both medical staff agreed that the PTs be the ones to coordinate with the head coach to report their assessment, mainly for efficiency and role clarity. On instances wherein the coach needs better understanding, the SC may also provide his insights.

During the rehabilitation process, the PTs of both medical staff shared that they are the ones who take care of the athlete during the initial or acute and sub-acute phases, but not without the input from their SC partner. Similarly, it is the SC who takes over for the "sport-specific" phase, while the PT can and should be able to assist. Both of the medical staff from each team adhere to this paradigm because they believe that the rehabilitation process and RTS should be collaborative. While it is more helpful to always recognize each other's limitations and strengths, both medical staff

believe that PTs and SCs should work together to create a professional relationship which is harmonious (Armstrong, 2021), and more importantly, focused on the athlete's optimal recovery.

It is good to note that, according to both of the medical staff, their respective head coaches have become more engaged and understanding when they discuss how they establish the injury mechanism. For them, being on the same page right at the beginning of the process may have contributed to the overall low injury burden of their teams.

Knowledge of the athlete's injury history is a non-negotiable component of assessment for both of the medical staff. Previous injury has been said to be the highest risk factor for further injury (Clausen, 2016; McCall, et al. 2016). Combined with practical movement screen tests, and more importantly, a good grasp of how the athlete plays, contributes to the bigger picture on how they approach each individual program.

Athlete adherence was perceived to be high, according to both of the medical staff. Aside from constant education and social support from the PTs and SCs, the head coaches from both teams were said to have a positive impact on the athlete's program compliance. The coaches were said to consistently encourage the athletes to trust the medical staff and do their best during the rehabilitation and strengthening process. They were mindful in reminding the athletes during pre-and post-training huddles, and during random breaks. This might indicate the low injury burden of the two teams, as coach compliance may not be enough for a program to work (McCall, et al., 2016). Similar with Ekstrand, et al. (2017), our study revealed that the head coach's proactive behavior and trust was perceived by the medical staff to be a better contributor to athlete adherence. In line with this, Ekstrand and colleagues (2017) found that supportive leadership appears to lessen the incidence of severe injuries. Additionally, another study found that a high quality of communication between head coaches and the medical team had lower injury burden (Ekstrand et al., 2019).

On a similar line, the head coaches from both teams were said to be encouraging not just to the injured athletes, but to the medical staff as well. Both PTs and SCs from both teams shared that this motivates them to work better and keep abreast with updated evidence and practical approaches. To them, a supportive head coach fosters an atmosphere of learning.

There was only one instance where head coach of MS2A and MS2B prematurely increased the athletes' physical load during an actual game. Fortunately, the injury was considered minor, and the athlete was already cleared to play. The medical staff was more concerned of the low conditioning level of the athlete, more than the injury, since it was his first ever game back after the injury. According to the medical staff, the head coach talked to them including the athlete to apologize and explain his rationale. He then acknowledged the good work his staff put in. During and after the game, there was no aggravation of the injury, and medical staff still considered the athlete's return to sport as successful.

There were also instances of indirect communication between the medical staff and the head coach. MS2A and MS2B expressed that this is due to "hiya" or awkwardness, which they attribute to their head coach's status as one of the winningest tacticians in the league. During these instances, they relayed the information to the assistant coaches, in which the head coach himself answered personally to the medical staff. Overall, the medical staff from both teams consider the quality of communication is high.

For the program evaluation, both medical staff were pleased with how their head coach would still conduct informal follow-up sessions, to make sure if there are other concerns he can assist with personally, or with the help of the management.

Overall, our study showed that a perceived good quality of communication between the medical staff and the head coach exists, and can be associated with low injury burden, high athlete adherence to rehabilitation programs, motivated staff, and consistent evaluation of programs.

Communication has been highlighted as a vital component for well-functioning teams (Reid, et al., 2004; Podlog, et al., 2011; Grindem, et al., 2016; McCalla, et al., 2016). Good communication quality facilitates efficient collaboration, allowing each member to have access to informed decisions which are crucial for return to sport, and more importantly, the athlete's well-being (Ekstrand, et al., 2019). For the medical staff in our study, their low injury burden can be attributed to the open line of communication between the head coach. The motivation to work smart for their athletes is reinforced by the constant encouragement and trust shown by the head coach.

The association between good communication and low injury burden is still unclear especially due to the limitations of this study. To the authors' knowledge, this study is the first of its kind to be done here in the Philippine setting. Further studies are warranted as our paper only focused only on the perceptions of the medical staff. The authors originally planned to gather data from the head coaches as well but were restricted due to their erratic schedules. Additionally, we only focused on two sets of medical staff. It does not represent the whole population registered in the tournament.

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Conflict of Interest

The authors declare no conflicts of interest.

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