Junior Club Volleyball Performance Training Methodology (Part I)

“Make the most of yourself, for that is all there is of you.” – Ralph Waldo Emerson

The realities of the high school and club volleyball schedule offer several significant limitations to performance training and physical preparation but, if we look closely, within that schedule also lies great opportunity. In order to develop a successful training program we have to be comprehensive in our planning and preparation processes then execute that plan effectively. Any athlete who has ever worked to improve their vertical jump, strength, agility, conditioning, etc, realizes that progress does not always come easily as nothing of value ever does. Yet the ultimate goal is to help athletes make the most of themselves and it is my hope that this article series will help volleyball coaches and athletes develop a plan to do just that.

“In preparing for battle I have always found that plans are useless, but planning is indispensable.” – General Dwight D. Eisenhower

Junior volleyball is certainly not war yet if one were to ask any successful coach or athlete exactly how they were able to get the job done one would find that they made a deliberate effort to overcome an adversary. In performance training those adversaries are poor posture, poor motor skills, stress, muscle weakness and fatigue (note: I use the term performance training to distinguish it from other training that volleyball players perform; I will refer to performance training as PT from here forward). As with any conflict there will also be circumstances and situations that develop that we must adjust to or risk failure. All of these factors will negatively impact performance on the volleyball court and this is why PT should be a priority for volleyball. An appropriately focused club volleyball program does not always require the presence of a PT program but there are positive factors that will help make the argument for its inclusion into the schedule.

The goal is for the PT plan to cooperate with the competitive goals of the volleyball program while not overwhelming the team and athlete. This coopetition strategy, a blending of cooperative and competitive strategies, is meant to better guide development and communicate how PT can be complementary to the volleyball program and competitive schedule. In doing so we can make significant changes in the athletes’ physical preparation while not competing with the volleyball program for the team or athlete’s best efforts. Every volleyball coach I have ever met wants more out of their players yet every one of them has also made it very clear that their priority must be what happens on the court. As USA Volleyball Grassroots director and coaching genius John Kessel has stated, “Conditioning is homework.”

With this coopetition process in mind many successful programs have realized that not every player will take a leadership role in their program, however, a point we make to all players in our club, and in our training program, is that every player has to be responsible for their behavior and not be a distraction to their team and our program. This same relationship dynamic exists between volleyball and the PT program and since volleyball is our primary objective PT cannot distract from its development processes as that is the most direct route to becoming a better player. In that way the performance training program should not distract from skill development on the court. The question then becomes: if a player needs to work hard to
improve their vertical jump, agility, and other skills to further improve their play how do we do that without leaving them with nothing left for the court?

**Leaving Them With Something for the Court (Stress Management)**

Although the stress of volleyball and the stress of PT are unique, the body only recognizes subtle differences in its response to them. As endocrinologist and biological stress expert Hans Selye has noted all stress comes from the same pool so in this way the stress can be described as stress to the organism\(^2,3\) since it affects the body as a whole. If we think of 2 glasses of water, 1 large and 1 small, we find an excellent way to demonstrate effective stress management:

![Two glasses of water](image)

These 2 different sized glasses are filled with exactly the same amount of water. What we find is that if we view the water as the total amount of stress the small glass is completely full. If we attempt to fill the glass with more water it will quickly overflow. If we compare this to volleyball development the addition of more stress, through additional practice or PT, will almost certainly result in overtraining or injury. With the larger glass it is only partially full so we can safely add more water without overflowing. If we are hoping to manage these scenarios effectively we have to manage the workload of the smaller glass better while with the larger glass we can safely add more work and create improvement. We can view the water as a sum of training stress, as the total amount of work performed in training including volleyball and PT, or as an individual quality we are addressing in training (e.g. vertical jump and the training that supports its development). In order to manage this stress effectively we use two complementary strategies:

1. Effective Management of Current Training Workload (Not Letting the Glass Overflow)
2. Improving Our Maximum Capacity (Giving Ourselves a Bigger Glass to Fill)

**Preventing Overflow (Stabilization; Effective Management of Current Training Workload)**

In order to manage the training program effectively we have to be more familiar with the background of the athletes participating so we can adapt the PT and volleyball program to their specific needs. This is referred to as a needs analysis. In my experience training volleyball teams and individual players often their training experience, referred to frequently as training age, is all over the map. Specific training qualities are often neglected altogether while other qualities may have been overdeveloped. A specific example is in the development of strength athletes
(e.g. Olympic weightlifters, powerlifters, etc) may make excellent improvements in the weight room yet this development may compromise their structural balance, flexibility, and movement if they are not comprehensive in their development. If this situation occurs it is important that the coach realize the athlete is not “broken”; yet if we move forward with a plan that does not address the team or individual athletes’ actual abilities we should not be surprised when that plan does not meet with success. Put simply if we can find our mountain peak on a map there is no point in giving them directions from halfway up if they are all the way down at the bottom! We all want our players to be challenged but it is vital that we give them workloads that reflect their current ability and not those of better prepared athletes (“9th graders, we are going to perform the same conditioning session the Olympic team does!” or “We are performing the Michael Jordan jump workout”). This is why experienced volleyball coaches understand the importance of progressions and not simply presenting skill in its most elite form.

If we are able to evaluate the team or individual effectively what is now left to do is to properly address their needs in the PT program. If we take our water glass example one step further it would be crazy to immediately fill the glass, with stress, for anyone but the most experienced athletes as that would create some initial disturbance in the stability of the environment and the water would spill. We should take this spill seriously as while in this example it only represents a small mess in volleyball and PT it represents an overuse injury to the shoulder, low back, knee, or ankle or an overtraining scenario that can include depression, loss of appetite, trouble sleeping, and decreased performance. It is also important that we distinguish between general stress to the athlete and the stress that develops to negatively affect the speed-power athlete (there are differences in how their overtraining manifests). As has been stated previously if we attempt to address too many qualities in the PT program we introduce two issues:

1. More Qualities Trained = Greater Difficulty in Stabilizing Performance of those Qualities
   (Example: Jump performance varying from session to session between excellent and “springy/elastic” to average and “flat/tired”)
2. More Qualities Trained = Greater Difficulty in Developing Mastery of any Given Quality
   (e.g. Beginner, Intermediate, and to some extent Advanced Athletes not being given the time to master the work they are performing before moving on to another quality in the training session and/or training phase; imagine a volleyball skills session that spent 10 minutes on a new drill/game before moving on to another. As has been discussed by Hugh McCutcheon and USA Volleyball our volleyball players are asked to be good at all skills and great at a couple. PT should be no different in its organization)

If we use two balls of different densities, which in this example we will represent with a tennis ball and a lacrosse ball, to represent the PT workload performed the lighter tennis ball will have a moderate effect on the water level and the denser lacrosse ball will have a more intense effect. So the lacrosse ball represents a training workload that is attempting to address all qualities at the same time while the tennis ball is focused on the development of fewer training qualities.
More Density (More Qualities Trained) = No Stress Reserve (Full Glass)

Less Density (1 or 2 Qualities Prioritized) = Stress Reserve (Indicating Better Recovery and an Athlete who is better prepared for more “Doin’ work” :)

With this example in mind we should note that the better prepared athlete, represented by our larger glass, is able to manage both scenarios effectively. So to move forward it is important that we communicate two points:

1. The underprepared or beginning/developmental athlete, represented by the smaller glass and its resultant overflow, with a full volleyball workload has to be patient and wait for an appropriate time to address their specific PT needs. If the PT program is to function at all for this athlete it should do so by helping to improve their recovery ability by improving general fitness and more specific training should be performed later when their volleyball schedule is not as extensive (The Off-Season Period).

2. In order for either athlete to continue to move forward we have to be able to increase the size of the glass and/or fill that glass appropriately.
**Organization (Improving our Maximum Capacity)**

To streamline a discussion on a PT plans organization will require introducing the 5 bio-motor abilities and a short discussion on their variations. Referred to by Frank Dick as the 5 S’s these bio-motor abilities represent the fundamental basis upon which sport performance is built:

- Speed
- Strength (Maximum and General Strength; with Speed-Strength and Strength-Speed in combination representing Power)
- Skill (General and Specific Coordination)
- Suppleness (Flexibility and Mobility)
- Stamina (Work Capacity and/or Endurance)

As with volleyball there is a nearly unlimited amount of variation in how our training methodology addresses the development of these qualities yet underlying a successful process we will find the training principles necessary to support their growth. The sport itself serves as an effective guide to how our PT should primarily focus on these abilities.

The first thing everyone should realize is that volleyball players, and most athletes, need ALL of these abilities. The good news is that what we will find is that in each sport how these skills are accomplished shows that we need these skills to be performed in a specific context. To explain further yoga is certainly well established in its ability to help people develop flexibility yet if we asked yoga practitioners to play volleyball competitively they would certainly fail! That is because in volleyball that flexibility must be paired with a high degree of skill and the speed and power to perform that skill properly. So in order to achieve that position we must be flexible but in order to make the play we have to be able to do so explosively and with great body control.

If we have determined that our schedule will allow for the inclusion of a PT program, and we have the stress resources available to manage it, it is now time to consider where we prioritize development. If we look at the “volleyball year”, from the beginning phases of our team and individual player development to the completion of our competitive season, specific training methods will be more appropriate at specific times of the year. This is the rationale behind periodization (a term used in sport science to describe the organization of the overall training plan) and it guides much of our decision making when it comes to what specific techniques, exercises, sets, reps, rest intervals, and density we choose to schedule.

For this article series we will assume that the priority is the off-season phase of the junior club volleyball season (obviously the importance of the season, and each competition, varies with the competitive goals of the team so this will be a general guide). An effective periodization plan has the integrity to have its schedule compressed to reflect our specific timeline for development and it is with this mindset that we will move forward. With this compressed schedule, or preparatory block(s) if you will, compromise always has to be made; if we compare this to volleyball if you have 1 practice for 90-minutes per week it is not realistic to expect your practice to be as comprehensive as a schedule that allows for 4-5 practices of 2-3 hours each.
References