

Health and Safety in International Taekwon-Do in New Zealand

In April this year an Irish boxer died in the ring. Injuries and deaths from contact sports such as boxing and rugby are regularly in the media and are concerning for many, particularly for parents deciding whether to let their children begin a sport.

In 2015 New Zealand revised the national Health and Safety legislation. This has brought health and safety into the spotlight for many individuals and businesses throughout New Zealand. This is an ideal time for the International Taekwon-Do Foundation of New Zealand (ITKD) to think carefully about how we carry out our art around the country to make sure that our members are healthy and safe.

Background – the Health and Safety at Work Act 2015

The new Health and Safety at Work Act 2015 (HSWA) became operative in April 2016. The changes were made because of a number of serious workplace incidents, including the Pike River Mine Disaster in 2010. However the changes have implications for small businesses, including sports clubs, as well as large businesses.

The Ministry of Business, Innovation and Employment website lists a number of aims of the HSWA, including:

- Reinforcing proportionality (what you need to do depends on the level of risk and what can be controlled)
- Hazard spotting focusses on critical risks that could cause serious harm rather than trivial things
- The concept of “reasonably practicable” has been introduced (you must take “reasonably practicable” measures to protect health and safety, but don’t need to go to extraordinary lengths)
- The focus is shifted to what the business does and what it can control rather than the physical workplace
- It provides flexibility for the business size and need, to try to get better worker engagement.¹

The HSWA has new requirements for ensuring workers are healthy and safe, such as requirements for training, workplaces, and safety equipment. It also has new penalties (fines or imprisonment) for those who do not comply with the Act.

Who does the HSWA apply to?

A new concept that has been introduced to the legislation is a “Person Conducting a Business or Undertaking” or PCBU. The HSWA applies to all PCBUs. But what is a PCBU? PCBU replaces the term “employer”. PCBU is a broader term than just “employer” and covers a number of different people who oversee or employ others or themselves for example employers, the Board of Directors of a company, or a foreman overseeing the work. A PCBU includes sole traders or those working for themselves. A person can be a PCBU

¹ Ministry of Business, Innovation and Employment website (<http://www.mbie.govt.nz/info-services/employment-skills/workplace-health-and-safety-reform>). Retrieved October 4, 2016.

and responsible for ensuring health and safety, whether or not the business is being undertaken for profit. However, a completely volunteer organisation which is run by volunteers and does not employ anyone is not a PCBU and the HSWA does not apply to them. Here are some scenarios:

- “Money Making Taekwon-Do” is a small club. Joe, the instructor of Money Making Taekwon-Do runs the club as a small business. Even though he doesn’t make much money from the club, Joe and Money Making Taekwon-Do are PCBUs.
- ITKD is a not for profit organisation but is a PCBU because we employ staff.
- “Volunteer Taekwon-Do” is a Taekwon-Do club set up as a not-for-profit club. The club is run completely by volunteers and does not employ anyone. Volunteer Taekwon-Do and their instructors are not PCBUs.

The HSWA applies to ITKD, and to Money Making Taekwon-Do, but would not apply to Volunteer Taekwon-Do. ITKD and Money Making Taekwon-Do, and their employees, need to be aware of their rights and responsibilities under the HSWA.

When the HSWA applies to volunteers

Many Taekwon-Do clubs, including those that are small businesses, are run with the help of volunteers. Volunteers and “volunteer workers” have different rights and responsibilities under the HSWA. A volunteer only becomes a “volunteer worker” if they are working for a PCBU. Importantly, a person assisting with a sports club or participating in a fundraising activity is not a volunteer worker under the HSWA (even if they meet the other criteria²). As sports clubs, all volunteers who assist around ITKD’s clubs will be considered “volunteers” under the HSWA not “volunteer workers”. What is the difference? The difference lies in the duty that the volunteers or volunteer workers have, and in the duty that the PCBU has to the volunteer/volunteer workers. In brief:

Volunteer workers have the same duties as other workers.

Volunteers do not have all the same duties as workers. They cannot be penalised under the HSWA except in two circumstances:

1. if they do not follow instructions and health and safety procedures the PCBU has told them about
2. if they do not care for their own health and safety and that of others around them.

PCBU is responsible for making sure “all reasonably practicable” measures are taken to make sure workers (including volunteer workers) and volunteers, as well as others in the workplace, are healthy and safe.

² To be a volunteer worker you must meet three criteria:

- The PCBU has knowledge of the work the volunteer is doing and approves of it
- The work is regular and ongoing
- The work is an integral part of the business or undertaking

What does the HSWA require?

In general, a PCBU needs to take care of their workers as far as is reasonably practicable. This includes providing the following things:

- providing and maintaining a safe work environment without risks to health and safety
- providing safe plant and structures
- providing and maintaining safe systems of work
- safe use, handling and storage of plant, substances and structures
- providing facilities for welfare at work (eg. bathrooms, kitchens) and making sure these facilities are accessible
- providing information, training, instruction or supervision for workers around risks to health and safety
- monitoring workers for health risks
- providing healthy and safe accommodation (if the worker stays in accommodation owned by the PCBU)³

PCBUs are also responsible for notifying the regulator (ie. Worksafe) if a “notifiable” injury or incident has occurred because of the business or undertaking⁴. These include injuries such as amputations, serious eye injuries, spinal injuries, head injuries, or injuries that require immediate hospital treatment.

In the workplace, PCBUs must give workers opportunities to engage meaningfully around health and safety. This means they must be given health and safety information in a timely manner, and have an opportunity to express concerns (and have these concerns taken into account).

The PCBU must also make sure that they keep up to date with health and safety, that they have up to date health and safety processes and procedures, and that they have appropriate resources needed for health and safety.

Workers also have responsibilities. Workers must:

- take reasonable care for their own health and safety
- make sure their own actions (or inactions) don't harm other people
- comply as far as possible with instructions, policies or procedures the PCBU has in place⁵

Workers may also refuse to undertake work if they believe it's unsafe⁶.

Anyone else at the workplace, including volunteers (or people doing Taekwon-Do), have to do the following things:

- take reasonable care of their own health and safety
- make sure their own actions (or inactions) don't harm other people

³ HSWA section 36.

⁴ HSWA section 56

⁵ HSWA section 45

⁶ HSWA section 83

- comply as far as possible with instructions the PCBU gives them about health and safety⁷.

Only a brief summary of the HSWA has been included in this essay. A number of good resources and summaries of the HSWA are available⁸ and more information can be obtained from these and other locations online.

What will happen if I don't comply and something goes wrong?

The new updates to the HSWA have introduced higher penalties for infringements of the Act, and show that health and safety is being taken more seriously in New Zealand. The penalties include fines which may be tens or hundreds of thousands of dollars, depending on the severity of the offence. Fines for larger businesses are higher than for self-employed people. You may receive a prison sentence for up to five years if you “recklessly” put health and safety at risk.

Health and safety risks at Taekwon-Do

Whether or not your club is a PCBU, the new HSWA regulations are a good reminder that we should think more carefully about health and safety in our clubs. When compared to some other workplaces the health and safety risks from Taekwon-Do are relatively low. The risks from Taekwon-Do are generally sports-type injuries. However as a sport Taekwon-Do covers an extremely broad range of activities, and can include activities such as camps or outdoor activities where additional risks such as heights, water, or exposure to the outdoors are involved.

ITF Taekwon-Do includes non-contact activities where general sports injuries such as cuts, grazes, bruises, sprains, strains, trips, falls, broken bones, or dislocations may occur. For Taekwon-Do the greatest risk of injury comes from events that are the most like actual combat – in particular those involving movements carried out at a realistic speed, and/or contact with objects or other people. Free sparring, self defence and power breaking are the most likely to result in injury.

The nature of Taekwon-Do as a martial art means that students are training for physical contact, and a self-defence situation. Some level of physical contact with other people or objects is necessary to facilitate this. However it is important that these activities be undertaken within appropriate limitations to keep practitioners healthy and safe.

I have discussed a number of specific events or activities that are undertaken in ITF Taekwon-Do in the sections that follow. I have focussed on Taekwon-Do specific events. Camps and outdoor activities are occasional parts of Taekwon-Do training, and carry risks such as contact with water, heights (for example confidence courses) etc. However these are not core Taekwon-Do events and require specific consideration, and have not been discussed further here.

Free sparring

Free-sparring is one of the most hazardous activities in Taekwon-Do, particularly in a tournament situation. This activity contains risks similar to those of other sports from athletes

⁷ HSWA section 46

⁸ For example see tools and information at Worksafe's website, <http://www.worksafe.govt.nz/worksafe/hswa> or Ministry of Business, Innovation and Employment www.mbie.govt.nz

moving quickly and contacting other athletes (eg. tripping, tangling limbs, changing direction quickly). This can result in soft tissue injuries, or even more serious injuries such as broken bones or dislocations in rare instances. However the greatest risk from sparring is the risk of head contact, which can result in concussion or have life threatening consequences.

Unlike some other ring sports, ITF Taekwon-Do does not apply “full power” contact and the aim is not to cause damage or injury to the opponent. The tournament rules require that only light contact be applied. Attacks to some areas of the body (for example the eyes and throat) are banned for safety reasons. Penalties (loss of points) are handed out to opponents who attack to illegal areas or exceed what is considered to be a reasonable level of contact. In addition, if an athlete is deemed to be at fault (as a result of using excessive force or an illegal technique) when an opponent is too injured to continue they will be disqualified.

One alteration ITF Taekwon-Do could make to the rule regime to reduce the potential for harm would be to prohibit attacks to the head. WTF Taekwon-Do adopts this rule. ITF practitioners often object to the thought of removing head attacks from sparring bouts. The stated intention of the Art is to teach self defence. Many practitioners I have spoken to believe that not attacking the head teaches ‘bad habits’ in self defence because opponents can forget to protect their heads. However other areas of the body are banned targets for safety reasons, as mentioned before, so if attacking to the head represents a significant risk then banning this kind of contact should be considered if it cannot be mitigated in other ways.

Tournament sparring is controlled by several people. Before the match starts the tournament draws are decided. This can be done via an electronic system and curated by the event organiser. Weight divisions are determined by the international or national rules which divide competitors into weight classes with a range of 6 or 7kg per division. However at smaller tournaments divisions are sometimes combined to ensure that opponents are available. This means that there are sometimes mismatches in weight, height or experience of competitors. Instructors are often provided with draws prior to the tournament and have the opportunity to object if the draw appears to be unfair for their competitor. This review can be important for competitor safety because instructors are most familiar with their own competitor’s abilities when faced with a larger or more experienced competitor.

Referees in the centre of the sparring ring are tasked with managing immediate action during a sparring match, and they have the primary responsibility for ensuring that the match is safe. Each sparring ring is also controlled by a senior official, the Jury President. The Jury President is typically a senior or more experienced and higher qualified referee, who should be experienced enough to identify when a match appears to be unsafe. However less experienced individuals are sometimes drafted into this role at local or less well-resourced tournaments. Finally, each competitor must have an instructor present at the side of the ring. The instructor also has the power to stop the match if they feel that their competitor is unsafe. And of course, the competitor is able to pull out of the match if they do not wish to continue.

All of the people involved in sparring matches (in particular trained officials) should ideally have training in how to identify risky situations (in particular the symptoms of concussion) so that they can stop a match at an appropriate time if an accident happens. Referees are trained in the rules of the match, including appropriate contact levels. At international and at

local tournaments there has been an increasing focus on ensuring that levels of contact are “light” and not dangerous. However this can be subjective and differ from referee to referee, and from bout to bout (depending on the opponents facing one another).

In terms of the rules, ITF Taekwon-Do makes an effort to ensure that opponents are safe during sparring matches. However in tournament situations the competitive nature of the match, performance pressure, or even unfortunate timing when two competitors come together at speed, can result in injuries – including risky head injuries. Safety gear is mandated by the international organisation, and adopted by ITKD. Mandated safety gear at tournaments consists of:

- headgear
- a mouth-guard (required to be clear so that bleeding in the mouth can be seen)
- padded hand and foot gear
- a groin-guard (males)

These requirements may be adapted for smaller local tournaments. Certain types of equipment are prohibited for safety reasons, for example hard shelled shin guards of the type used by soccer players. Referees or marshalls generally check that each competitor is wearing the correct gear before they enter the ring. These checks ensure that competitors are wearing the mandated safety gear. However these checks do not enforce the design of the gear (which happens before gear is purchased), or the condition or the fit of the gear. All of these things are important in ensuring that the gear performs its intended role.

There is a European standard for martial arts personal protective equipment (PPE)⁹. Martial arts PPE must comply with this standard to be sold in Europe¹⁰. This standard requires characteristics such as being securely fastened so it does not move around, constructed of durable materials that do not split, and energy attenuation of impacts. I was unable to find information regarding the requirements for ITF Taekwon-Do sparring gear and what the requirements are for gear accredited by the ITF organisation.

Sparring safety gear effectiveness is likely to be improved through careful fitting, regular checks to ensure gear is in good condition, and regular replacement of gear as it becomes worn. This is the responsibility of coaches and competitors or their parents.

Regular checks for fit and replacement also apply to mouthguards. Literature indicates that mouthguards do prevent oral injuries, although contrary to popular opinion their effectiveness in preventing concussion may be debatable¹¹. However, mouthguards should

⁹ EN 13277-4:2001+A1:2007

¹⁰ “PPE for Use in Martial Arts”. Article on SATRA Technology Centre website. (2010) http://www.satraprotection.co.uk/spotlight/article_view.php?id=423. Retrieved October 6, 2016.

¹¹ McRory, P. (2001). Do mouthguards prevent concussion? *British Journal of Sports Medicine*, 81-82.

McRory, P. e., Tater, C. H., Meeuwisse, W. H., Aubry, M., Cantu, B., Dvorak, J., et al. (2013). Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012. *British Journal of Sports Medicine*.

be checked regularly to ensure that they are a tight fit, and have a good thickness of material protecting the teeth. Children particularly may regularly grow out of mouthguards or damage them by chewing.

Some recommendations¹² indicate that both safety gear and behaviour modification are important to ensure safety during sports, and this appears to be true for ITF Taekwon-Do as well.

Summary:

Safety measure	Current Requirements	Recommendations
Sparring management - Rules around level of contact and targets	Rules are mandatory for tournaments (international organisation). Levels of contact sometimes reduced at local tournaments, particularly for children. This depends on the tournament organiser.	None at this point, as there is not evidence suggesting that risk of severe injury is sufficiently high for action to be taken. More research needed (see final conclusions).
Sparring management – officials and instructors	Some training is provided on appropriate levels of contact at umpires courses. Instructors must hold a first aid certificate.	More training and information could be provided by ITKD to officials and instructors on identifying and managing concussions.
Safety equipment - environment	Sparring rings for tournaments mandated by national and international organisations.	A safety culture could help ensure that risks from the environment (nearby hard objects, trip/fall hazards etc) are identified, especially when sparring in club environments.
Safety equipment – what is worn	Equipment is mandatory for tournaments (international organisation)	Reviews of literature could be undertaken to assess whether the safety equipment currently in use is as effective as possible using current technology. Likely most effectively undertaken by the ITF as they certify safety equipment for use at international tournaments.
Safety equipment – design and construction	Mandatory (regulated by international organisation)	
Safety equipment - maintenance and fit	No requirements. Most effectively managed by instructors and students/parents	More information or reminders could be provided by ITKD to instructors and parents to maintain equipment and check it fits correctly.
Tournament management – matching of	Mandatory (regulated by international and national	Providing draws to instructors prior to events

¹² eg. “What are the most effective risk-reduction strategies in sport concussion?” Benson, BW; McIntosh, AS, Maddocks, D; Herring, SA; Raftery, M; Dvorak, J. British Journal of Sports Medicine. August 2013.

opponents/management of divisions	organisations) in terms of weight classes, although divisions are often merged at local tournaments. Mismatches in terms of experience and ability can occur in regular or merged weight divisions, and these are best managed by instructors and referees. The level of control and willingness to stop dangerous matches currently varies between officials and instructors.	could be made mandatory, and could help identify mismatches early. A focus on health and safety culture could help ensure sparring matches are kept in check by officials or competitors withdrawn when necessary by instructors.
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Power breaking

Power breaking is an event which requires techniques to be performed with a body part moving at full speed towards a hard target. This can obviously result in soft tissue, and sometimes hard tissue, injuries.

Power breaking is an event undertaken in controlled surroundings. Power breaking machines come in a variety of different designs but in general minimise the structure that is actually holding the board so as to minimise obstacles that the breaker could hit and harm themselves.

A key component of ensuring that power breaking is undertaken safely is ensuring that the Taekwon-Do practitioner is well practised in the event. This has two components: practising the movement itself, and conditioning the breaking tool. These things are under the control of the instructor and the Taekwon-Do practitioner. There are a number of tools that can be used to improve safety while practising. These include wearing safety gear while training, for example a shoe on the foot or glove or shin guard on the hand. This allows more repetitions to be undertaken without becoming painful, which increases the amount of practise a student is willing to undertake. Repetition allows perfection of technique and the creation of pathways in the brain or “muscle memory”, meaning that techniques are more likely to be performed correctly and accurately at full power.

Instructors also have an important role to play in attitude to breaking safely. While competition leads to improvement, machismo or excessive competition can lead to students attempting harder breaks too quickly, leading to risk.

ITKD organisation rules limit the breaking techniques undertaken by young students, and children are not typically required to perform hand break techniques in gradings or tournaments.

It is the role of the instructor and student to ensure that students entering a competition or grading event are practised and capable of performing the requisite breaks. In terms of ensuring that power breaking in a tournament situation is as safe as possible, students should come to the tournament fully prepared. To assist with this tournament organisers should advise competitors and instructors of the breaks required (type of technique and the minimum number of boards required) as early as possible before the tournament. Officials should avoid altering these requirements if at all possible. Beginning breakers entering local tournaments could be allowed to wear safety equipment (padding on the hands or feet) to reduce the risk of injury.

Summary:

Safety measure	Current Requirements	Recommendations
Breaking machine design	None	National or international organisations could make recommendations on design of power breaking equipment, however there is not specific evidence that equipment is dangerous and safe design guidelines are required (see final recommendations).
Students well practised at required techniques	None	Officials could be given the ability to prevent competitors from performing breaks in tournaments if they are obviously unpractised. However this could create conflict for officials.
Breaking requirements	Children do not perform hand breaks – under 18 years for ITKD grading requirements, although tournament requirements may be different.	None at present.
Protective equipment during breaking	None, although protective equipment during practise is becoming more common. Used during local tournaments on a case by case basis, depending on officials.	None at present.

Self defence

Self defence is another activity that includes undertaking activities at realistic speed with a partner. Self defence is not undertaken in tournament situations, but only in club situations. Self defence activities generally have fewer safety restrictions than sparring. Attacks can be made to any vulnerable target area including the neck, groin or eyes (albeit with a very controlled level of contact). In addition, safety gear is not generally used when training self defence techniques. Undertaking self defence practise safely usually relies on the students using good control of the level of force involved and the targeting of the technique. Slower and more gentle drills are sometimes used to practise movement patterns, but more realistic practise requires that more speed be used, which increases the level of risk and reliance on the student's control.

Self defence activities are generally controlled by the instructor. The instructor has the responsibility for setting drills and for matching partners together for drills. This can require some care, and careful supervision of less controlled students to ensure that accidents don't occur.

Safety measure	Current Requirements	Recommendations
Controlled techniques and drills	No requirements, managed on a case by case basis by instructors	A health and safety culture could help identify risks and ensure they are managed before incidents occur.
Control of training area	None	A safety culture could help ensure that risks from the environment (nearby hard objects, trip/fall hazards etc) are identified, especially when training in club environments.
Protective equipment	None	A safety culture could make the use of safety equipment more common during training, to reduce injury risk.

ITKD and health and safety

At an organisational level, ITKD has a brief health and safety policy which is available on the website. This contains a number of commitments to minimising risk:

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1. Promoting an environment recognising health and safety as important issues.
2. Ensuring event organisers and instructors identify hazards and other safety issues.
3. Preventing accidents through training of organisers and volunteers in using good safety practices.
4. Recording any accidents and other health related issues occurring in the Regions.
5. Review policies and practices through past experiences.”¹³

ITKD requires that all instructors have a current first aid certificate, and has recently provided templates and recommended that all clubs prepare a health and safety plan.

The ITKD website contains a number of useful reference documents. Among the numerous topics covered there is guidance on opening clubs, information for those running tournaments on how to do so, and an event organisation policy. None of these included specific guidance on health and safety.

ITKD also runs a variety of training courses. The majority of these contain technical (ie. sport specific) content. ITKD does run Instructor Induction courses which are compulsory for all instructors, and cover general instructing skills. However this course does not currently contain any information relating to managing health and safety (pers. com. M. Lowe).

ITF Taekwon-Do tournaments in New Zealand are organised at a number of levels, ranging from tiny local tournaments to regional, national or international events. Having a first aider present is compulsory for tournaments.

¹³ ITKD website (2004) <http://www.itkd.co.nz/reference/documents>. Retrieved October 4, 2016.

It appears that there is scope for ITKD to provide more detailed and sport-specific guidance to assist PCBUs, and practitioners in general, to ensure that ITF Taekwon-Do is undertaken in a safe manner.

Barriers to health and safety

ITKD's clubs and events are run by people with a variety of backgrounds. Consequently, those running clubs on a day to day basis and organising events will have a range of experiences with assessing, identifying, and appropriately managing health and safety risks. Upskilling those with low knowledge around health and safety could help measures to be implemented more consistently.

Because many club instructors and event organisers are volunteers it is important that incorporating health and safety into events be made as easy as possible. A lack of time is one barrier to health and safety being well implemented. To be effective, health and safety should not be seen as a "tick box" exercise or bureaucracy. Templates could be prepared to make this as easy as possible for volunteers to use, but in order for these to be most useful they would need to be tailored for the specific event. There is a balance to be struck here – if too much detail is provided in the plan the organiser may not do enough to tailor it to the event. If too little help is provided it may be seen as too hard a task and be missed.

Another barrier to providing good health and safety is the cost. For example, it is required for first aiders (St Johns or similar) to be present at tournament events. However the cost of this can be prohibitive, even for large events. Similarly, safety equipment such as sparring gear can be expensive and can therefore be used past when it can perform its intended function. ITKD could make it a requirement for tournaments above a particular level (for example regional or national tournaments) to have a first aider present. I see this as a priority to ensure that potential head injuries are promptly and accurately assessed during contact events. Although financial costs for first aider attendance at events are high, the risks from untreated head injuries are also high.

Discussion

ITF Taekwon-Do is clearly an activity that has risks of serious injuries, including disability and death. A number of mitigation measures are already used to reduce risks to practitioners. Some of these are enforced formally through rules and regulations. Others are general practice but not requirements. Measures (such as requirements for protective gear) are often adapted, particularly for smaller events, depending on the level of experience and age of those taking part.

As a parent organisation ITKD has a number of options for assisting with improving health and safety in the organisation. This could range from a hands-on approach mandating health and safety requirements, to a more hands off approach providing tools and guidance but not setting requirements. In practise a combination of these approaches is likely to be the most successful. The HSWA recognises the importance of having workers buy into and be involved in any health and safety regime. This is less likely to be achieved by a fully dictatorial system. On the other hand, those involved with ITKD are likely to have different levels of experience with and appreciation of the importance of health and safety, and therefore it is important that ITKD sets at least some minimum expected standards for health and safety. The question is whether the correct balance is currently being struck between

the hands-off approach and requiring that measures be implemented, and whether the mitigation implemented is appropriate for the level of risk.

ITKD needs to have good information to help assess how risky their activities actually are. To the best of my knowledge there is not currently any information collated about health and safety incidents in ITKD. Collating information from clubs about serious harm incidents could help identify and quantify risks that need to be managed.

Many people come into contact with health and safety in their day to day lives, particularly in their workplace. However more discussions of health and safety in a Taekwon-Do context could help to pass on best practices around the organisation, and improve the safety of practising the Art in New Zealand.

Overall I believe that thought and planning around health and safety is the most important single measure that could be implemented. A requirement (rather than a suggestion) to prepare health and safety plans for each club and for events such as tournaments would bring health and safety to the front of the minds of those involved with these events.

Because many of those running clubs, tournaments and other events are volunteers it is important that any new health and safety measures are easy to implement and not seen as red tape or bureaucracy. Likewise, additional costs should be avoided where possible so that measures are not put in the “too hard” basket. When considering whether to mandate health and safety measures the risks should be considered and balanced against the benefits that can be obtained. Where the likelihood and consequences of harm are high, stronger measures are justified to mitigate against or manage those risks. Serious health and safety incidents create reputational and financial risks for ITKD, and the HSWA highlights these.

Recommendations

Based on the review above it is apparent that many strong health and safety measures are already in place throughout ITKD. However I have identified some improvements that could be made to reduce risks. The following measures are recommended:

- Provide training to instructors and those involved with events in identifying and mitigating health and safety risks. This could consist of a brief section in instructors and umpires courses around common risks and how to avoid them. Instructors could also be trained in modifying activities for different age groups or ability levels to improve safety (for example, provided with information relating to exercises that are not safe for very old or very young students, and safe adaptations for those exercises).
- Provide tools and templates to assist event organisers with preparing a health and safety plan. Templates are little use unless they are customised so that they are appropriate for the actual event they are managing. Of course, they must be implemented and not gather dust in a corner. As a national organisation ITKD could consider making the preparation of a health and safety plan mandatory for all tournaments, or perhaps for competitions at a certain level (those expected to attract a large number of competitors such as regional and national tournaments) to avoid making requirements for small local competitions too onerous.

- ITKD could make first aid support at tournaments compulsory. As discussed above, this could be tournaments at a certain level (those expected to attract a large number of competitors such as regional and national tournaments).
- ITKD could maintain a register of serious harm injuries. This will allow collection of data so that the numbers and types of injuries can be collated and analysed, and recommendations made for potential improvements.
- ITKD could regularly communicate with instructors around safety such as passing on lessons learned and other safety messages.
- Research could be undertaken into sparring PPE and how it could be made more effective. Due to funding issues this is most likely to be undertaken at an international rather than national level.

Disclaimer: the information regarding the Health and Safety at Work Act is the result of my own reading and interpretation of the legislation and not professional or legal advice.

Thank you to those who answered my questions about this topic: Mr Shaun Tolley, Mr Gwyn Brown, Ms Rosemary Pettit, and Mrs Angela Oliver.