THE JOURNAL OF EXCELLENCE

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Mission of the Journal of Excellence

Terry Orlick, PhD – Founder and Editor in Chief, the Journal of Excellence.

My mission with the Journal of Excellence is to fill some important gaps in our knowledge, actions and our lives, that are essential to the successful pursuit of personal and professional excellence. The Journal of Excellence is devoted to nurturing excellence in all human endeavors and all worthy pursuits. Our focus is centered on the pursuit of excellence in the working and performing parts of our lives, as well as our lives outside the workplace or performance domain. Our goal is to inspire excellence, provide a forum to discuss the positive pursuit of excellence, and share practical strategies and perspectives for pursuing meaningful high-level goals.

The Journal of Excellence is committed to nurturing a positive vision of education and training for better people, better performers and a better world.

There is much value in pursuing excellence, in education, sport, health, the performing arts, parenting, teaching, coaching, health care, political, government and business leadership, and every workplace. There is also much value in the pursuing excellence in quality living, quality relationships and the development of a higher level of humanity. This is the first and only journal, which has **EXCELLENCE** in multiple domains as its sole focus. The ultimate mission of the Journal of Excellence is to provide insights and strategies that will help us to collectively become more successful in the pursuit of performance excellence and more fulfilled through excellence in living.

My vision is a journal that is applied in orientation, relevant in content and wide ranging in application. We are committed to:

1) Learning from and sharing the experiences of exceptional performers and inspiring people.
2) Developing a more thorough understanding of the mental links to excellence.
3) Promoting excellence in performance and excellence in living.
4) Initiating positive real world change.

If you have experiences, applied research or meaningful insights that are relevant to the pursuit of excellence in any worthy human endeavor, for any age group, we encourage you to submit your material to the Journal of Excellence to be considered for publication.

Becoming the conquering hero: A young boy's journey to marathon excellence

Lisa **Benz** and Terry **Orlick, Canada**

Lisa Benz completed her Master's degree in Human Kinetics at the University of Ottawa under the supervision of Terry Orlick. For her thesis, she examined the focus that elite marathon runners use during their best competitions. Through interviews with elite marathon runners, Lisa attempted to discover what these athletes focus on when they perform their best, distractions that they experience during the race, and the techniques they use to refocus. Lisa is a distance runner, and competed on the varsity teams at the University of Calgary and the University of Ottawa.
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Abstract
The following interview with Bruce Deacon was a joint interview, conducted by both Lisa Benz and Terry Orlick, as part of Lisa's thesis. Bruce is a Canadian marathon runner who represented Canada at both the Atlanta and Sydney Olympic Games (1996 and 2000, respectively), as well as four World Championships. He won a silver medal at the 2003 Pan Am Games. The interview is centered on the focus that Bruce used during his best marathon. Bruce clearly, effectively, and insightfully recalls his best marathon, powerfully detailing a race that occurred 13 years before the interview. Lessons can be drawn from Bruce's experiences – not only from his best marathon, but also from disappointing experiences during his pursuit for excellence.

Interview: Bruce Deacon, June 10, 2008

Lisa: Can you tell me how you got involved in running?

Bruce: I grew up in Ottawa at the time of the '76 Olympics. Essentially I was one of the shortest kids in my school, and I was one of the worst kids at sports. I was the guy that when we played softball in class, I'd run to the outfield because I knew no one could hit the ball that far, so I knew I couldn't drop it if no one could hit it out that far. And of course there's nothing to do out there, so I was the guy that was actually making little sandcastles because there was just really nothing to do. I went out for a skating class, and I think I lasted one class before the instructor said 'you know, this just really isn't this kid's gig. You maybe want to practice on your own first.' And so there was a lot of that sort of stuff. I was also one of the very first classes to go through French emersion, and so they tested us extensively. And the tests were such that they started out with very easy questions and then proceeded to questions that were quite complex and usually it was timed so that you didn't finish the booklet and you didn't really know what they were asking you in the last few questions and pages. And you know what kids are like, when you've finished the test everyone wants to know how you've done. And

I was the kid who said I'd flunked, I didn't know what they were asking and I still had four pages left in the book. And frequently the other kids would say 'oh, I aced that,' so I was pretty much convinced that I was stupid. And then I also had a speech therapy problem, so I was getting speech pathology a couple times a week. I'd speak like Elmer Fudd, I couldn't say 'r' and 'w,' so I'd say, you know 'wittle wed widing hood' and that sort of thing. So the long and the short of it is, by the time the '76 Olympics came around, and later the Commonwealth Games in Edmonton, I really had very low self esteem, but I oh so badly wanted to find some sort of a sport that I could do well at. And I can remember watching the intro to Wide World of Sports where they splash all kinds of sports all over the screen, and I knew that there had to be, if there was that big a wide world of sports, there had to be something that even scrawny little kids could do to beat the big kids. And I can remember praying and saying 'God if you give me a sport that I can do well at, then I'm going to really work hard at it, and really practice hard.'

I went away to a summer camp, this was kind of the early stages of the marathon boom, and at the summer camp there was a councillor there who had done a marathon. I had no clue what a marathon was. I knew he had this 30 mile club that he started where over the three weeks you were at camp you had to run 30 miles and you got a t-shirt. And oh I wanted that t-shirt. I figured that the fastest way to find out about this marathon was to actually go for a run with him and to pepper him with questions. I knew it had to be something special because whenever an adult said it, it was you know, 'Rob ran a *marathon*.' So you could tell by the hushed tone of respect that this was something pretty important and big to him. So I went and asked Rob, who was the councillor, 'can I go for a run with you,' and he

said, 'well, I'm actually training for a marathon, and the shortest run I'm doing is five miles.' And for some reason I said 'well I can run five miles.' In all honesty, it was about as close to a lie as you can get. The furthest I had run was across the school yard being chased by someone in a game of tag.

I figured 'well now I've got to go prove it.' And it was like a half-mile loop around the camp, and so I figured that I had to do 10 of these and if I stopped it probably wouldn't count. And somehow I dragged myself around this loop. I still don't really know how. But by the end I started to think, 'you know, I bet there's a lot of big kids that can't run this far. And maybe this is the sport that I can do well at.' And that's really what got me into it. That's when I was 11. I came back from camp and of course because Rob had run marathons, that was my big goal. So at 12 I ran a couple of marathons before I was counseled out of running that long at that age.

Terry: What a great story!

Bruce: Well it really kind of turned a corner in my life. When I think back about the experiences that I had in the sport and the opportunities that the sport has provided, it was really kind of a turning point.

Lisa: So how did things progress from there after that summer camp? How did you continue with your running after that?

Bruce: Well I went back to school and I tried out for cross country, well went out for cross country because there's no real try outs, and I would arrive at school fairly early and run around and around the school yard. Sometimes as far as, well what I said was 10 miles, I don't know if it was 10 miles, it was like 40 laps of the school yard which could have been anywhere from 10

miles to eight miles, I don't know, but it was a decent amount for a little kid to be running. I went into my first race and sure enough I didn't do very well. I wasn't last but I was far enough back that probably if I'd looked over my shoulder could have seen last. Anyway, I had been bitten by the bug by then. I started to run and joined East Ottawa Lions and trained with that group, and that got me really kind of hooked into running.

Lisa: So then you just progressed with it throughout the rest of high school?

Bruce: Yeah, pretty much. One of the big stars of the day was Bill Rodgers. And Bill Rodgers to me was what Bobby Orr was to a lot of my peers. I actually wrote to Bill when I was 12 and said that I was running marathons. And he was kind enough to write back to say, 'well you probably shouldn't be running marathons while you're 12 years old, run track.' And I was disappointed to hear this, nevertheless I took his advice and started running track and started doing reasonably well at high school track and progressed through track and field and went off to university and ran a real lacklustre university career at the University of Western Ontario. When I moved out here [Vancouver] to do my teacher's training, that's when things started to really take off and I started to make some national teams.

Lisa: What kind of distances were those?

Bruce: My first national team was for 10,000 metres. So it was kind of the longer track distances. I was okay in high school in cross country, but my running style wasn't exactly suited towards running cross country. So it was mainly the longer track races and then I started to dabble a bit back in the marathon and that's where things started to go well.

Lisa: And so when did you run that first marathon (as an adult)?

Bruce: I think I was 24.

Terry: So that was almost 12 years later, after your first one.

Bruce: Yeah, yeah it was.

Lisa: And how did that first marathon go, when you were 24?

Bruce: It went reasonably well. I ran 2:19. I think I was 10th or something like that in Canada. And it was okay. The real breakthrough was the following year when I went from 2:19 to 2:15 and that's when it was like 'okay, well I could make a go of this.'

Lisa: And so when you ran the 2:15 was that your second marathon?

Bruce: Yes, that would have been my second one (as an adult).

Terry: What did you learn from the first one that you applied to the second?

Bruce: I think one of the things was that my 10k time really dropped significantly. I went from running 29:25 for 10k down to running 28:46 and that qualified me for the World University Games. So I went away for the World University Games and I fell in love with the Games and I just became that much more determined to run, to get back to a multi-sport Games, some sort of a Games. And I realized that it probably wasn't going to be 10, 000 metres, and that if I was going to do the marathon I was really going to have to up my mileage and put the hammer down and go for it. And so I think really what I learned was that if I was going to compete at the marathon at a higher level, at a national team level, that I was going to

have to work harder than what I was working.

Terry: So did your training change after that?

Bruce: Yeah, I strung together some pretty good mileage after that. Not excessive, but 100 mile weeks. And I think as much as anything my mental approach changed. I think at that point in time I started to think of myself more as a marathoner and I was seeing that the marathon was going to be where my priorities would be in terms of training and racing.

Terry: Do you think that you were more committed to this journey now then you ever were before then?

Bruce: It's hard to determine that because I was pretty determined at a pretty young age. I think that what I would say is that I started to believe that my dreams could actually come true.

Terry: I was going to ask you 'when did you start to believe that your dreams could actually come true?' So was it around that time that you thought 'yeah, I could really do something here'?

Bruce: Yeah, when I look back at my university career, I was a choker, I really choked in big races. And with the marathon, there's not much room for that because you can only run like two or three a year, so if you're going to choke as soon as you get to a big race, well, good luck, you're only running local races when nobody's there. I think one of the big epiphanies for me was that the training group I had was essentially like a national team training group. I was working with the Kajaks under Marek Jedrzejek and Doug Clement and it was a fantastic training group. And what I was

able to do was to observe how Canadian record holders and Olympians and Commonwealth Games medalists approached their sport, and it just really kind of opened up my eyes that you don't have to under-perform at a big race. It just got me thinking more along the lines of 'I'm a professional.' Instead of thinking 'oh, I hope I have a good race,' it was 'well why wouldn't I have a good race?' At the same time I was entering into the profession of teaching and so I saw the way that professionals think. My dad was a dentist and I started thinking along the lines 'well my dad doesn't wake up in the morning and say 'gee, I hope I don't drill through somebody's cheek.' He's a professional, he expects certain things of himself, he expects that he can perform on the day due to the training and the education that he's had. And so why would it be any different for me? Because I've done the work, why can't I perform on the day? And it just really changed the way that I approached things from a mental perspective. I really think that a lot of the change at that point in time wasn't necessarily that I dramatically changed my training or that sort of thing, I think a lot of it was that I got myself into a different place mentally where I actually started to believe that I could do something and that I could reach levels of being on an Olympic team.

Terry: So reflecting back now, what do you think empowered you or enabled you to make that change? Was it training with those people and watching how they approached things or that combined with making you think, I can really do this? How did that shift take place for you?

Bruce: Yeah I think that training with those guys really helped a lot.

Terry: What did you see? Was it something that they were doing, or just the way that they walked out there? What was it?

Bruce: It was their approach I think, Terry I can remember I was doing a fair bit of work with a steeplechaser by the name of Graeme Fell and it was to see the way that he approached the sport, it was to see the way that Paul Williams started to approach the sport, and Len also. It was to see these guys, that they were very normal people, they weren't immortal as I had made them out to be, they were just normal people. They had the same mental skills that I had, they might have had more talent in certain areas but it was just gradually starting to think that I can race well when I need to race well. And it was a realization that if I want to race well then I have to train hard and I have to devote myself to this and I had to take some risks. I was teaching full time in '92 and I was hoping to make the Olympic team in Barcelona, and I just wasn't far enough along, really, and you had to run two standards. I ran out of time, I was too young. And that made me think, 'well, I missed it this time but I really want to make the next one.' And so that started to get me thinking 'okay, what do I have to do?' And in '92 I went away in the summer time to England and I trained with a guy by the name of Bud Baldaro.He was the national marathon coach in the UK, and I think if any one person really helped to bring me along in my thinking, in my training, in my approach to myself, if any one coach really added that and helped develop that it would have been Bud. He has a wonderful way of making you believe in yourself and I think that really helped out a lot, and also connected me with the top British coaches and top British runners from the '70s and '80s and I just interviewed them. How they train, and how did you approach the sport, and I took copious notes. And it was really like going away to

marathon school for a summer. It was amazing. It was a great opportunity that really got me thinking beyond where I was.

Terry: That was a great move. Can you comment any on any more details on what Bud did, like what was special about him projecting belief or helping you believe? Did he make comments or what kinds of things did he do?

Bruce: Well one of the big things that he did was, he took it away from things being one season at a time. I think we're pretty good as athletes and coaches at making yearly plans. But we're not necessarily great at making multi-year plans. And so he just kind of demystified things. He was kind of like 'well if you want to make Atlanta then you should do this the year before, do well at World Championships. And the year before that you should be on the Commonwealth Games team, which was in Victoria. So what are you going to need to do to do that? What are you going to have to race?' And so we just kind of broke it down, we made a plan. And that I think really helped. It helped from an organizational perspective because then I knew how to organize my training and my racing. But it also helped because as he's doing this, he was speaking not as 'well, this might work, and you might be able to do this if you do this,' it was a matter of fact type thing. You have the talent to do this. Why wouldn't you be able to pull this off? And it was that sort of thing that really helped me out a lot and really got me thinking in the direction that 'I can pull this off.'

And I went back [to England] in 1994 to run the London Marathon, and it was just the same kind of thing, 'Bruce you're going to do this. You're going to have a great race.' And it was just very, very positive thinking and very positive outlook to things. It was

speaking as if this was going to happen and not as if this could happen. And you start to absorb this over the space of a week or two and you start to think the same things. 'Well why can't I do this,' as opposed to thinking, like I would have in university 'oh I hope I have a good race,' or more likely 'I hope I don't have a bad race.' I put so much energy into thinking 'gee I hope I don't have a bad race,' and now it was just a case of 'well I'm going to have a good race.' And I think that's really one of the things that he was able to do, was to shift my paradigm away from worrying about having a bad run towards having a good run. And it complimented so much of what was already starting to occur just from training with these faster guys. It wasn't a one-off thing, it was just set in so nicely with the other things that I was starting to think anyways. And I actually went and trained with him in 1995 prior to the World Championships. I'd qualified for the Worlds, and I knew if I came top 20 that was probably the best way to qualify for the Olympics. Bud and I kind of mapped out a schedule as to what would happen. And I went away on holidays with him and his family, out to the Cornish Coast and just trained there. It was just great because it was like having one-on-one coaching for two or three weeks. With somebody who not only has the technical expertise, which no doubt he has, but I wouldn't say that's the strongest thing that Bud has going for him. I would say that the thing that Bud has going for him more than anything is the psychological end of things, just to be able to speak confidence into an athlete and to get you thinking that you could go through a wall. And I've talked to other athletes who have worked with him and it wasn't just me. That's one of the greatest things about Bud's coaching skills is that he is just so good at making people so confident.

Terry: So then it was just a question of executing your race and you're going to be there. Is that right?

Bruce: Exactly. We planned out a plan and the plan was to start conservatively and just work through the field. And it worked to a T. So with 100 metres to go I was in 10th whereas I had been seeded 70th. And I ended up getting 11th, I got out-kicked by a US guy but never-the-less it was that huge breakthrough that showed that I could run well at a championships, that essentially set me up to be qualified for the Olympics. There were still some more hoops to jump through, but what that did for my confidence was just enormous.

Lisa: Can you tell me a bit about why you run?

Bruce: I just really love it. There are certain things that I love about the sport. I live close to a big forest and I love going running in the woods. And I love the feel of just getting out and being active and having some alone time. I think the other side of it is that I like the feeling of working really hard. If it was just a case of just going and jogging, I think that would be fine for a while, but I really do like the idea of pushing myself and seeing what I've got in myself on the day. I think also, over time, it has become part of my identity. And so I think some of what I like about the sport is that it is part of who I am. And competing is part of who I am. The other thing is that it's a competitive outlet. When you think about it, there are not that many places in the real world where you can be competitive and not be thought of as a jerk. Whereas when you're an athlete and you're competing in a race, it's okay to try to out-kick somebody in the last 100 or 200 metres. It's okay to drop a surge in the middle to try to break somebody.Aggression is not thought of as negative. It's thought of as

just being a good competitor, being tough. Whereas if you try to translate that into the real world, the non-athletic world, we're taught to be cooperative, we're taught to be kind, to be gentle. Especially as Canadians, aggressiveness isn't really thought of in a positive way, or it is if it's constrained and it's limited. So it gives me an outlet to be competitive where I'm not thought of as less of a person but I'm thought of as more of a person. I don't know if that makes a lot of sense.

Terry: Yeah, I think it makes a lot of sense. You commented about running in the woods, or through forest trails near where you live. Where is your mind on those kinds of runs? Are you sometimes just completely free, just running, or are you kind of in and out? What are you connected to in those runs generally?

Bruce: Well I guess it depends. Some of it will depend on how hard I'm running. It really varies, Terry. Sometimes this is my time to work through problems.

Terry: Yeah, you just kind of let them work their way out, right?

Bruce: Exactly. Other times, this is my time where it's a very spiritual time, it's almost like a devotional time. When I was younger and more driven by competing, a lot of the time was spent just dreaming about races. You know, running through races.

Terry: So would you imagine people next to you or finishing strong, or that kind of thing?

Bruce: Absolutely. It was my visualization time really. But not in the typical, like lie in the middle of the floor on your back and imagine waves are breaking over you, that sort of thing. It was just going out and run-

ning hundreds of races in my mind where I see myself doing well, either winning or running a time.

Terry: Did those things surface naturally, or on the way out think 'I'm going to be thinking about these things?'

Bruce: No they were very natural. I think part of it was being driven towards a single race. The unique thing about the marathon is that unlike a 1500m race where you have 10, 12 races in a season, with a marathon you've got two or three in a year. So you really have to be mentally ready for those, you really focus on those races, that's why it's so tiring and so difficult to hold a marathon build-up for much more than 12 weeks. It's not necessarily that the training is so intense, it's the focus is so intense. So it's just the focus and it's all or nothing. It's one race, on the line. And so to be able to run through that race in a number of different ways and times, it just kind of came naturally because of the focus of the whole thing.

I just think that the whole training and racing season for a marathon is significantly different than for other events. If you are running 10k's and you have a bad weekend and you're sick, well that's okay, you don't race because there's another race in another two weeks or something like that. And as a result there's a little less pressure to have it all together on the one day. Because there are multiple days, you judge your season on two or three months of training, and racing really. Whereas with the marathon, you judge yourself, your season, based on the one day that you have. And as a result there's a lot of pressure.

Terry: So there is added pressure in the lead up time to the race because those races are so important, there are so few of them?

Bruce: Exactly.

Lisa: You have talked a bit about focus, can you just describe what focus means to you in terms of your running?

Bruce: Yeah, it's waking up and knowing that 'okay, one of the most important things that I have to do today, if not the most important thing I have to do today is train. Because I now have nine and a half weeks left until the marathon.' And the next day I have a little less than nine and a half weeks left. Three days later, I have nine weeks. And it's the focus of knowing 'okay, I have to recover from yesterday's workout because I have to go out and bury myself again in another two days. And so I have to work as hard as I can today but yet not work so hard that I won't recover. It's every little time that you've got a twinge or a niggle or something like that, you're in to a physio or a chiropractor or somebody like that because you just have to stay ahead of everything. If you're injured or lose a week to injury, then how will you get caught up? It's always having the marathon in front of you.

Lisa: Okay, and then what about being focused while you're running? What's that like for you?

Bruce: I'll give you an example. We kind of talked about some of the dissociative thinking, running through the woods type thing. That's really not all that focused because there's a lot of free mental time there, which is one of the things that I really like about the sport. But if I'm running hard, then I can't do that. When I get to a certain pace or a certain level of effort then I'm just not able to put thoughts together that way. So then it becomes more focused and I'm thinking more about what my body is doing, I'm scanning my body, I'm pushing my body that much harder, I'm playing little mental

tricks to try to keep myself from backing off. I'm monitoring how I'm feeling, whether I'm tight or I'm loose. If I'm in a race, I'm watching where other people are and trying to relax in behind them. It's very, very, very focused and it's mentally taxing.

Terry: You mentioned the mental tricks to not back off, can you share some of the things that you did or do?

Bruce: Yeah, a lot of it is self-coaching.

Terry: So what kind of thoughts, or what would you be thinking, saying or hearing?

Bruce: I hear Bud's voice a lot.

Terry: Okay, do you mean in terms of a believing type of voice, or in terms of what you should be focused on at that point in the race?

Bruce: It's like Bud is standing on the side of the road cheering me on type thing. English accent and all. A lot of it is just digging down and pulling inspiration from anything you can think of at the time or anything that comes to mind. One of the ways I like to run, in the later parts of the race, is to be the hunter. So I'll be trying to focus on the guy ahead of me and how I can get up, pull them in and try to relax. In the latter stages of the marathon your mind starts to do some very strange things with distance. For instance, a mile will go by very quickly in the first 10 miles. Whereas a mile will go by very slowly from 20 miles on. And it's not necessarily that you're running slower, it's just that your perception of time and distance is askew. So it's trying to get through those types of mental things or perceptions of time and distance. In some cases you're picking landmarks and you're running as hard as you can to the landmarks. Most of it is just a lot of really hard self coaching and self talk.

So 'come on Bruce, come on, you can do this, come on, come on, be tough, stay with this guy, stay with this guy.' You know, 'if you can hold with this guy for another mile you can break him.' That sort of thing, just a lot of self talk, a lot of self coaching as I'm running along.

Terry: When you're saying 'come on hold it, hold it,' or 'you can catch this guy,' do you say that a few times and then reconnect with your pace or movement or picking it up? Is it kind of a back and forth kind of thing?

Bruce: Absolutely. It's not a constant me yakking away in my head. A lot of it is just monitoring where I'm at and just getting lost in the flow of things.

Lisa: What would you say was your best marathon?

Bruce: I definitely think the Gothenburg one is the very best that I've ever run.

Lisa: When was that?

Bruce: That was in '95.

Lisa: Was that the '95 World Championships?

Bruce: That's right.

Lisa: Okay, what I want you to do is just take us through that marathon, the days leading up to it, the night before, the morning of, and then the various parts of the race, what you were focused on and what you were thinking about. So can you just start with the couple days before - what were you doing then, focusing on?

Bruce: Actually it was very interesting because I qualified in Toronto, I ran 2:17 in

Toronto, which was off my best by about four minutes. And I was asked by the head coach to write a letter saying how I was going to come top 16. And I was teaching full time plus at that point in time, I was teacher-principal of an independent school, so I was working crazy hours. So part of my plan was, it was going to be summer so I wouldn't have to work that hard, and the other part of the plan was that I was going to go and stay with Bud for a while. And so I went over. When I look back on it and I tell people that I was forced to write this letter, a lot of people are quite surprised that I was required to do that. But when I look back on it, I think it was the greatest thing going, because it set a standard of expectations for me, and the expectations were that you're not going just to have fun, you're going there because we expect you to come top 16 in the world. And to be quite honest with you, that's what I wanted to do anyway, so it wasn't like 'gulp, I'll never be able to do it,' it was like 'well, this is exactly what I'm trying to train for,' so if anything it was a confirmation of 'well, hey, they expect this of me and I expect this of me, so let's just go and make it happen.' I went away to England and I trained with Bud for probably five weeks before the race. And when I went over I was very fit. I had just won the national 10,000 metre championships and I was ready to go. And this is when I spent some time with him down on the Cornish Coast and it was just such an inspiring place to train and it was just so enjoyable to train with Bud for that kind of time. And then to just have some down time with him. I trained two times a day and it was a little surf village, so then we'd go body surfing during the day. So it was fun, it was just a really enjoyable time. I didn't feel like I was living a monastic life, I felt like I was living a very outdoor and vigorous life. It was aligned with the kind of person I wanted to be, and it was focused, yet it wasn't focused

in an anal type way. I can remember sitting up on this big bluff, and Bud an English teacher by profession was reading English poetry to me and some other athletes. Really rich memories of just having a good time. When we returned to Birmingham, which is where his home is, we had probably a week and a half left before the race. We started looking at what the weather was like in Sweden where the race was going to be held. And it was an unusually warm summer. So it was at that point in time that I realized that I've got to start doing some heat training because although it was warm, I wanted this to be in my favour. And I wanted to be able to race really well when other guys were going to get psyched out by that. So I started training in a sauna and I would run on the spot in the sauna to get ac-climatized to the heat. And saunas are way hotter than anything that you're going to get outside of the sauna. So it was really good, it was good in the sense that it physiologically helped me to acclimatize, but I am a firm believer that it just made me really tough to the heat. So when it came time to being a warm day, and it wasn't excessively hot during the day, but certainly hotter than what you'd want for a marathon, it was like 25°C (77°F) - 26°C (79°F) but I was ready for that, and I didn't think that it affected me at all.

I got into the village a few days before the race, probably five or six days before the race and it was just a really positive experi-ence for me. I can remember rooming with two guys that I had trained with, and we were all newbies at this level of competition. And one of the guys was a steeplechaser, and I think he came last or pretty close to last in his heat. I can remember him coming back and saying 'you know, we're just not ready to compete at this level. We're just not at this level.' And when I reflect on it, it was a time when I very easily could have said

'yeah, you're right, oh boy I hope I don't have a bad race.' But my reaction was 'well maybe you're not, but I am.' Because I had just been so conditioned over the preceding weeks that this was going to be a positive experience and that I was ready, and that if I just stuck to my race plan that things were going to go really well.

I can remember late at night going out into this big field off of the athletes' village and thinking things through and thinking about what I wanted to do and how I wanted to race. And there was one other Canadian marathoner who was running and that was Peter Maher. And Peter got into the village a little later than I did, and he'd run the kind of race that I wanted to run which was going out slow and picking people off. So I really tried to get as much advice from him as pos-sible. And he was doing wacky things like shaving his head for the heat, a little too much for this cat. But anyway, I figured 'what I'll do is I'll key off of Peter' and I think that's what I try to do in a marathon. Because there's a fair amount of pressure of not wanting to go out too fast, but yet want-ing to go out at a pace where you feel like you're still connected with the race. I try to find somebody that I can run with, kind of key off of for the first few miles, just to take the mental pressure off of myself. So I fig-ured 'well, I'll key off of Peter because Pe-ter has done this before and this is the kind of race he's going to run again.' And so I went out, and I've got actually a picture of Peter and I leaving the stadium, and I think that we were the third or fourth last people leaving the stadium. So we were way back. At two kilometres I looked behind myself and I think I was last. And it looked like Peter was not having a great race. So it was kind of one of those things, 'well do I stay with Peter or do I venture off and just try and pick things up?' At that point in time the choice was pretty simple. If I stayed with

Peter, I was hitching my wagon to a star that really wasn't going to go very far. So I really ventured off and I started to gradually pick off people and work my way through the field, probably about 100 runners, so I was probably about 98th or 99th. I just started to gradually pick my way through the field.

When I was in England I was really getting absorbed in the English culture and really having good conversations with Bud and other people about a whole variety of things, from history to art to literature. I'm a huge Churchill fan and so I adopted the coaching line of 'this is your finest hour' which is part of Churchill's speech to encourage the British people as they are getting bombed by the Germans during the Battle of Britain. So I really adopted that line. And before I left home I started going out with a woman who would later become my wife, Rosemary, so I was missing Rosemary and because I was in Sweden I took the Viking line of return, I wanted to return the conquering hero. A Viking raid. So I used these throughout the race as encouragement and just to calm myself down as much as anything. Not to get too carried away in the early parts of the race. And also just to build up the excitement.

When it comes to being in the flow, I think I was really in the flow that day. I was having fun. I was looking around myself and it really was my finest hour because I was feeling like I had trained and worked so hard, and dreamed so much of being in this kind of a race. **And there was no other place in the world that I would have rather been.** I was having so much fun. Just running. Just competing. And seeing all the different colours of the uniforms. Getting to the water stops and seeing the elite water bottles from different countries and grabbing mine and getting back into the pace and keying off some guys and then they'd start

to slow a bit and then I'd go catch the next group and work my way through. And it was a three lap race so when we looked at the course, everything was seen through a positive lens.

It was a three lap race and it went right by the athletes' village. So that means that as the race goes on and people started to feel tired, it was going to be this constant pull to drop out because they know that they can just scoot over to the athletes' village and gather their thoughts and console themselves. It was a hot day and so I knew that this was going to play to my advantage and I knew that the three laps was going to play to my advantage because I knew that when I went by the athletes' village I wasn't going to get pulled away by that but that I was going to benefit from other guys feeling that this was something that they would be tempted to do. And so I was running these laps and moving up through the field. I think the first real time that I had any idea where I was, was at 20k or something like that, and somebody yelled out 'you're in 30th place.' So I had already passed like 60 people or so. And at 25k I think I was in 23rd. And then I was really getting excited. This was my finest hour, and then I started to recognize the people that I was passing. I think that that really helped me to feel a real rush that I'm racing in the big leagues now, this isn't just a bunch of guys with fancy uniforms on, these are the guys that I've seen on the covers of running magazines. And then I broke into the top 20 and I realized 'hey look, if I can hold this, now I'm on the Olympic team, or well on my way to being on the Olympic team.' I kept pulling along and passing people. I can remember looking up the road and seeing guys that I recognized, Steve Moneghetti from Australia, I could see him running along and thinking to myself 'that's Steve! Holy crow, I'm not that far off of where Steve is!' And all the time I keep us-

ing the lines 'this is your finest hour' and 'return the conquering hero' and a lot of self talk. It was really fun because I passed these guys that I knew. And part of me wanted to stop to ask for their autograph. Because I really felt like I was in another world. As I was going along and as I was competing it was like 'no, you're competing and you deserve to be here.' The race grew as I ran it so that my confidence was getting larger and larger. I felt like I deserved to be there and that I had what it took to actually make it and be very competitive in this.

I got into ninth and I was racing with the guy who had won the New York marathon the year before. Part of it was like I just couldn't believe it, it was like a dream that I was racing against, going head-to-head with a guy that I had only read about in results and seen on magazine covers. It was almost surreal. And I was in such a flow, I just couldn't feel like I could get myself tired. It was only really the last two k that I really started to feel like 'okay, now I'm tired.' Actually Espinosa pulled away from me and I'm no longer in ninth, now I'm in 10th and I can remember entering into the stadium and knowing that 'I'm in 10th place right now.' And I looked over my shoulder with about 70 metres to go and there was Steve Plasencia from the United States and he was closing down on me and he was like a 27:50 10k guy and 'gulp, what am I going to do?' It was like I heard every single high school coach that I'd ever had say 'pump your arms! Pump your arms!' And I later saw it on television, it was like I was doing the front crawl, I was so tired and so uncoordinated at that point. My arms were going wide and Steve just blew by me and there was nothing [laughing], nothing short of hitting him that I could have done. I knew that wasn't kosher, so I ended up in 11th and I was just so overjoyed with that. I just

couldn't, couldn't believe it. I was just so completely absorbed in that experience.

To show you how absorbed I was in it, the President of Athletics Canada, I don't know where they were sitting in the stands, they called down to the track side. I was talking with one of the coaches and they called down to congratulate me. Somebody passed me the phone and, and said 'it's the President!' The first thought that entered through my mind was 'well that's awfully nice. I wonder what George Bush wants to say to me!' [laughs]. It was almost like 'aw darn, it's only Alex Gardner,' [laughing]. I was just so overjoyed with the whole thing and so caught in the moment and I think that was one of the things that typified the whole race experience. I was so caught in the moment, there was nothing else in the world that was going on besides from the race I was running. There were no distractions, there were no thoughts about 'I wonder how so-and-so is doing,' or 'oh gee, look at the Volvo plant we just ran by.' It was so focused. I guess there were some thoughts, but I was just so caught up in the race and the fun of it, it was hard but it was just so much fun.

Terry: Awesome description of that race!

Lisa: Yeah, that was really good!

Lisa: You did kind of mention that things got difficult with two kilometres left. Can you tell me what you were doing to actually deal with that?

Bruce: Oh gee. Hmm. [Long pause] Just a lot of self coaching, this is your finest hour, coming back to those key phrases. They're kind of humorous now, but at the time I had accepted those as my as my key phrases during the race.

Lisa: What focus do you feel allows you to perform your best while you're running?

Bruce: I think it's the feeling that things are working out, that sense of momentum, a sense of things operating according to plan, or a feeling that I've been able to adapt to the circumstances that I haven't anticipated. And reshape the plan, and now things are working according to plan. I guess you could say it's a feeling of control. You feel like you're in control of what's happening. Then it's fun, it's what you trained for. You're a performer, you're like an actor on a stage delivering the lines that you've rehearsed over and over and over and gauging the audience's response, a positive response.

Terry: Is the feeling of being in control and moving forward you described, related to you just being in each moment as it presents itself?

I think so. I am in the moment. I'm not running the next mile, I'm running this mile. And I know that some people break things down into various different chunks and I've kind of done that before too, but I really think that a lot of it is just being in the moment and just being able to race. When I'm having a fantastic race I'm not caught up in running to the next mile marker I'm just running where I'm running. And the mile markers seem to be flowing past me, as opposed to me working to get to the next one.

Terry: Did you feel at the end of the race that you gave everything that you could?

Absolutely. The last 100m I was spent. I had given absolutely everything that I could.

Terry: How did that feel?

Bruce: Oh, it felt great. It just felt great. It felt like I was in a position where I timed it perfectly. I mean physiologists will say that one of the best ways of racing is even splits and I was pretty much dead-on even splits. It just worked out to be the ideal race. And I had done so much better than anybody had ever really expected me to do.

Lisa: So how would you compare your focus with that race in '95 where you were feeling great with a race that was disappointing?

Bruce: I think that often in a race that's disappointing, I just never really get that momentum behind me. I ran the 2000 Olympics in Sydney and I just never got the momentum behind me. We started into the wind, it was a ferocious, windy day, and 30 to 50 metres into the race I got tripped and did a spread eagle on the ground. I picked myself up and tried to console myself a bit, 'this is going to make a really interesting story once I've done really well. I'll be able to point back and tell kids about overcoming adversity and picking yourself up off the ground'. I had those few fleeting seconds where I thought that this is going to work out okay. And a few hundred metres down the road, the athlete that I'm running behind jumps out of the way and sure enough there's a barricade. So I slip to the side and then we're running down the road a little while later and the guy in front of me jumps because the person in front of him had fallen. And I almost fell again. This happened about two or three times and then I'm running along and I look up and there's this big sign that says 'one kilometre.' And I'm thinking, 'oh crap, this is not how I envisioned the Olympics.' And from there right on through to the finish it was like I never felt like I had a sense of momentum. It was always like one 'oh crap' moment followed by another. So I never really got into the case where 'things are good, now it's really going according to plan.' So that

was an example where the difference in the focus is that I'm not focused, I'm not necessarily lost in the moment and feeling a sense of momentum. I'm feeling the sense that the wheels are falling off the wagon, that I'm having a hard time leaving behind the incidence on the last kilometre or mile, that sort of thing.

Terry: So did it spread out after that? Was there room to run after that?

Bruce: Yeah there was and I got to about 15 kilometres and then the pace quickened and I started to cramp. I lost contact with the group of guys that I was really focusing on running with. It just kind of went from bad to worse and it turned out to be a pretty miserable day. And it was right down to the things where you start to put together images while you're running, where it's like 'oh man this is so lousy, even this is going wrong.' So running downtown we're going between buildings and the wind is so strong that it whistles down this tunnel and is blowing the bottles off the tables. And instead of thinking positively, I'm thinking, 'holy jumping. Could it get any worse than this?' We go underneath this overpass and the crowds are really thick and it's echoing in there, and instead of thinking 'wow, this is really energizing,' I'm thinking 'oh this is so deafening, can't they just shut up for a while.' So it was just one thing after another.

Terry: So it just sort of spiralled down then?

Bruce - It just went completely out of control. I was never able to gain control back. I think it's reasonable that things aren't always going to go your way. So you practice your mental techniques and strategies so that when things aren't going your way you can still gather control and refocus and deal with it. But I was never

able to pull myself together for those strategies to work.

Terry: Do you think you learned anything from that race that helped you in other races? Or did you never experience that kind of multiple obstacle situation again?

Bruce: [Pause] My natural inclination is to say 'no,' I didn't learn what I probably could have learned if I'd had a proper debrief from that. But when I look back on it, I start to think 'well okay, I have had other races since then where things started out in a way where there was certainly a possibility that I could have taken a really negative view of things. For instance, I got to Pan Am Games and I missed my ride to the start through miscommunication. So I ended up taking a cab and got there like really late before the start. And we couldn't get into the stadium and I had a tussle with this armed guard who was about to take the safety off his machine gun. I finally arrived at the start and it's like 10 minutes before the start and I don't have any time to warm up. And the race goes out way quicker than I ever thought it would and before long I'm pretty much in last and it's going to be a really hot day and there I am running all by myself. I had every reason not to be positive because I could have very easily said, 'oh, this is just another Sydney.' But I didn't go down that way and I was able to stay positive. So I don't know if that's just kind of mental skills that I kind of absorbed from Sydney or if it was just a different type of day.

Terry: So let's say that we can do time travel and you can run that Sydney Olympic race over again, what do you think could have made a difference? I know you can't change that race, but maybe other people can learn from that one, or from what your wisdom tells you now. Looking back in

from the outside, maybe you could have done this or this or this.

Bruce: I think that in light of the first three close calls in the first kilometre and the fall, I think I handled those pretty well mentally. I think where I kind of lost it was when I looked up and saw one kilometre and thought 'holy crap. I've got 41 more of these.'

Terry: It probably felt like you went about 30 k right?

Bruce: That's exactly it, 'I can't believe it's only one kilometre.' So I think I should have had a couple of mental tricks up my sleeve to really gather myself together if things went that badly. I'd imagined things being tough because you have to, but I'd never really imagined that kind of a crisis. Falling

that early in the race or having those kinds of things that would keep me from getting into a rhythm early. I think that I should have had a way to re-gather myself. It did spiral from there because I remember going over the Sydney bridge and not even feeling like I was getting into a flow and having a hard time settling into the pack. I think I needed to have a couple of strategies worked out in advance, 'okay, if you're not feeling like you're in the flow, you're going to do A, B, C, and D.'

Terry: Thank you Bruce for sharing some great insights about the up and downs of the journey.

Lisa: And I really appreciate it.

"Fun with Focus": A Mental Skills Intervention with 3rd Graders

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Abstract

Fun with Focus was a mental skills intervention that targeted 3rd graders in a public, elementary school in Metairie, Louisiana, U.S.A. Its purpose was to educate the students through experiential learning activities with the ultimate goal of increasing their amount of time on task. The activities included a variety of exercises that addressed concentration and interpersonal relationships. The intervention strategies were designed to last five minutes and were implemented at strategic times during the ninety minute class period over fifteen days. Using a participant-observer method for data collection, the frequency of students' off-task behaviors were clustered into specific categories. It was hypothesized that "time on-task" could be inferred by measuring the frequency of 'off-task' behaviors. Analysis of the data indicated that there was a marked decrease in the frequency of "off-task" behaviors both during and following the intervention.

Introduction

The aftermath of a catastrophic natural disaster lingers far beyond the media coverage of CNN, the Weather Channel, and other national media outlets. In the case of Hurricanes Katrina and Rita, and most recently Hurricanes Gustav and Ike, the infrastructure of communities is decimated to the point that lives, literally and metaphorically, come to a halt. Recovery from these events continues well into future months, years, and decades. It is said that recovery focuses on resuming recognizable degrees of stability, normalcy, empowerment, and a renewed sense of community (Ehrenreich, 2001) and that sport and recreation can be used as 'normalizing' activities (Henly & Colliard, 2005).

In addressing this possibility, Blom, Drane, D. and Green (2007) investigated the impact of youth sport on the recovery of those left in the wake of Hurricanes Katrina and Rita along the Gulf Coast region of the United States. Their findings indicated that youth sport had little impact on the immediate recovery process due to the impact these storms had on the mere existence of such programs. For example, results indicated

that 87% of all programs were totally eliminated as a result of the storms. Within programs that survived, there was an 87% increase in behavioral problems amongst the participants as well as a 47% increase amongst parents and coaches. The conclusion was drawn that youth sport was not a significant factor in the recovery process for youth. And, while most youth sport programs returned to the playing fields over the next three years, an aura of discontent, worry, anxiety, and post-Katrina stress disorder hovered over affected communities.

Lingering effects on the physical and emotional well-being of metropolitan New Orleans students proved to be pervasive and were often traced directly to the aftermath of the storm. Immediately following the storm in the New Orleans area, it was reported that 40% of those seeking medical help were experiencing post-traumatic stress syndrome (greater than 10 times the national average). Twenty months later, increases in anxiety cases had increased further (Samuels, 2008). Generally speaking, primary clinical concerns included emotional issues and trauma symptoms (e.g., increased acts of violence, depression, separation from parents complex, headaches, irritability, risk-taking behaviors, excessive clinginess) (Viadero, 2007).

Viadero (2007) also reported that a fourth of all students in the 3rd grade or younger experienced psychological distress to the extent that they should have been referred to mental health professionals. But, with a 90% drop in the number of available health care professionals post-Katrina, there was little help to be found (Sternberg, 2006). In fact, 2007 found 25% fewer acute care hospitals when compared to pre-Katrina numbers, as well as a 42% decrease from pre-Katrina numbers of available hospital beds. Circumstances remained difficult three years into

the recovery despite reports indicating a significant increase in the number of practicing physicians in the New Orleans metropolitan area (Evans, 2008). However, even with the increase in the number of physicians available, the infrastructure of the medical community was such that there were significant issues pertaining to services for the uninsured, the economic losses burdening the working hospitals, and the expected three to four years it was projected for the completion of a proposed facility whose purpose would be to serve the indigent.

The Intervention

Two and one-half years post-Katrina, the lead author delivered a workshop entitled "Leadership in the Classroom" to the faculty and staff of an elementary school located in the metropolitan area of New Orleans. It addressed various methods of classroom management that included: awareness of the changes in student culture over the past decade as a whole and, specifically, within the areas affected by the storm, a description of the "Mind Set for Success" needed to interact with the current population of students, a review of the basic mental skills utilized by leaders in today's educational setting, specific "lessons" identified for leaders by Colin Powell (Harari, 2002), and a synopsis of factors influencing one's level of happiness. As had been a custom following previous presentations of this nature to public schools in the area, the lead author offered his assistance to any teacher who wished to pursue specific applications of the strategies outlined in the presentation to his or her respective classroom. "Fun with Focus" was the result of a truly dynamic collaboration with a 3rd grade math teacher who solicited this assistance.

Fun with Focus is a mental skills training program implemented over a two month period following the workshop. It targeted a 3rd

grade math class comprised of thirty students whose daily schedule included a 'home room period' that segued into their formal instruction in math. Thus, they were in the same classroom for a total of 90 minutes. The students in this class were representative of most public school classrooms in the metropolitan New Orleans area. To whit, these students:

1) had been separated from a primary caregiver;
2) had transferred to a new school;
3) had lost a family member or friend;
4) had a parent who was unemployed;
5) were still living in FEMA trailers;
6) were still living with extended family members in their recently rebuilt homes;
7) had recently moved to entirely new locations; and/or,
8) were otherwise living under the extending circumstances created by the storm.

Indeed, only three of the thirty students were participating in organized youth sport. The full-time classroom teacher identified an area of major concern described as extensive off-task behaviors exhibited by the students that disrupted the learning environment. She sought new instructional methods that could remedy the situation. Thus, the purpose of the intervention was to address the students' skills of attentional focus and interpersonal skills.

From the onset, it was explained to all student participants, their parents/guardians, the principal, and the classroom teacher that this was an educational intervention that would address skills in concentration and time on task, not a clinical intervention conducted by a licensed psychologist. The program was organized to include:
1) four days of Pre-Intervention data collection,
2) fifteen days of intervention, and,

3) four days of Post-Intervention data collection.

The intervention strategies were designed to last approximately five minutes and were implemented at strategic times during the ninety minute class period, e.g., immediately following morning announcements, approximately 30-40 minutes into the class session, when 'the moment' called for redirecting attention, and/or just prior to exchanging classes. The time allotted to the intervention strategies varied in length but was intended to serve the purpose of enhancing the academic lesson rather than supplanting it. The strategies included a variety of exercises that addressed concentration and interpersonal relationships, e.g., "Up and Down the Ladder" (counting breaths); "In & Out" (ratio breathing); "Squeeze 'Em" (progressive relaxation); "My Favorite Place" (guided imagery); "The Centipede" (walking meditation); "Salute the Sun" (focused stretching); "NSEW" (focused stretching); "Silent and Calm" (five minutes during which the students executed exercises of their choosing); "Respect: Self, Others, School" (interpersonal relations); "The 3 C's: Calm, Composure, Consistent" (self regulation). In addition, a strategy referred to as "The Scoreboard" was used in order to quantify the perceived social climate of the classroom as a whole. A 1-10 scale was established whereby a '1' indicated "the worst possible day with the most off-task behaviors possible" while a '10' indicated "the best possible day with the least amount of off-task behaviors possible". This particular strategy was conveyed to the students at the end of the class period to describe the 'state of the union' to the class and to bring closure to the day. In this manner, the students were given feedback as to their "skills in concentration and respect for self and others" for that day. And, over time, the students used the "Scoreboard" to de-

termine their progress in these areas, e.g., they often inquired, "Are we getting better?"

The intervention strategies are described below and, in many cases reflect those developed by Orlick (1993).

"UP AND DOWN THE LADDER"
Turn your attention to your breathing . . . Take a good clearing breath and tune in to the four parts to a complete breath . . . the inhale, the pause, the exhale, the pause . . . as you complete the last pause, count 1 . . . as you complete each subsequent breath with the exhale/pause, count in sequence (1, 2, 3, etc). . . . count your breaths from 1 to 10 and back down to 1 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1). This can be done with eyes closed or with eyes on an external focal point (spot on the ceiling, a letter on a sign, etc.). The number of breaths used can vary depending on time and skill level of the students, e.g., 1-3-1, 1-5-1, 1-10-1, 1-15-1.

"NORTH, SOUTH, EAST, AND WEST"
Begin in the 'centered position' (sitting or standing) with your head and spine in alignment, as if a long pole extended through your body from head to toe along your spine. Take a deep clearing breath, then take a complete inhale and pause . . . As you begin the exhale, move your head forward, timing the exhale so that your chin touches your chest at the precise moment you complete your exhale . . . pause in this position until you are ready to take the next breath . . . then inhale as you 'return to center', timing your inhale to match the return of your head to the centered position. Once centered, exhale as you lean your head to the right, timing the exhale with the movement until you get as close as you can to placing your ear on your shoulder . . . pause in this position until you are ready to take the next breath . . . then inhale as you 'return to center', timing

the inhale to match the movement of your head returning to center . . . pause in this position until you are ready to begin the exhale . . . as you exhale, lean your head backwards, ending the exhale at the precise moment that you have leaned back as far as possible . . . pause in this position until you are ready to complete the breath by timing the inhale so that the movement of your head back to center is completed at the precise moment corresponding to the end of the inhale. Then lean your head to the left, timing the exhale so that your head is as close to your shoulder as possible at the end of the exhale . . . pause in this position . . . then inhale as you return to center, timing the inhale to match the movement of your head back to center. This completes one set.

"IN & OUT"
Take a clearing breath, focusing on the four parts to a complete breath (inhale, pause, exhale, pause). Inhale to a count of three, pause, exhale to a count of six, pause. Repeat three times. Then progress to a count of 4:8 . . . then to a count of 5:10 . . . then to a count of 6:12. Increase the ratio of inhale: exhale as high as you are able. Find a rhythm (do not hold your breath at any point in time). The 'count' should approximate one's ability to perform the given ratio or should last approximately 1 second (one Mississippi, two Mississippi, etc) as you count out the duration of each inhale, each exhale.

"SQUEEZE 'EM"
Follow the general guidelines for progressive relaxation. Preferably, this exercise is performed while lying down. However, it can be performed while sitting with an appropriate posture (e.g., feet flat on the floor, spine erect). Take a clearing breath, focusing your attention on the rhythm of your breathing and the four parts to a complete breath. Once you have settled in, shift your

attention to your calves. Flex your calf muscles by drawing your toes upward, toward your knees. Hold the tension . . . hold the tension . . . hold the tension . . . then, release the tension slowly (as if you were playing a 'long note' on a trumpet), feeling the tension flow out of your body through your feet. Continue to breathe. Again, flex your calves and hold them tightly . . . hold them tightly . . . hold them tightly. . . then, release the tension quickly, in a short burst (like playing a 'short note' on a trumpet). Continue to breathe and become aware of how soft your calves feel. . . Now, shift your attention to your thighs. Flex them tightly and hold them . . . hold them . . . hold them . . . then, release the tension slowly (long note style). Continue to breathe. Again, flex your thighs and hold them tightly . . . hold them . . . hold them . . . then, release the tension quickly (short note style). Continue to breathe and become aware of how relaxed your legs feel.

Continue this process, proceeding to each major muscle group (i.e., calves, thighs, abdominals, forearms (make a fist), biceps (flex at the elbow), shoulders (pretend there is a 'meat hook' lifting you up from between your shoulder blades), face (blow your cheeks out as if you were playing a trumpet, scrunch your brow and close your eyes . . . "blow 'em out, scrunch 'em up").

Once you have progressed 'up the body', finish by retracing your steps 'down the body', addressing each muscle group in reverse order

"SALUTE THE SUN"

Assume a balanced stance . . . with knees slightly bent . . . feet shoulder width apart . . . hands at your side . . . eyes on a 'focal point' (could be anything, preferably small in size, any distance away) . . . keep breathing. While keeping your left hand at arm's length along your side, raise your right hand directly above the shoulder at arm's length . . . palm facing forward (just as if you were actually 'saluting the sun' as it rises or sets). Hold this position as you bend your left knee with your left hand, raising your left foot behind you so that your heel comes as close to touching your bottom as possible (it's o.k. if you can not bend it that much . . . just raise your foot behind you to the point where you 'just about lose your balance'). The final product is a balanced stance, with your left hand held to the sky, while your right hand holds your right foot behind you (coming as close to touching your bottom as possible). Hold this position and take three complete breaths. As you exhale for the third breath . . . reverse the hand positions, as smoothly as possible, with as much control and rhythm as possible (i.e., while you lift your left hand from along your side to a position fully extended and directly above your shoulder, use your right hand to secure the right foot at the ankle so that you can flex it behind you as far as possible). Hold this position for another count of three breaths. As you exhale for the third breath, bring both hands in front of your center of gravity (just below your navel). This completes "one set, using three breaths". Multiple sets would include raising the numbers of sets to be completed, as well as increasing the number of breaths to be taken for each position, e.g., two sets of four breaths, three sets of four breaths, or any combination you choose that will increase the difficulty.

"MY FAVORITE PLACE"

While sitting or lying down, take a deep clearing breath and turn your attention to your breathing. Focus on the four parts to the complete breath, e.g., inhale, pause, exhale, pause. Count five breaths.
Then, imagine that you rise from where you are sitting and walk to the door. Imagine that you reach for the door knob and turn it in order to open the door . . . walk through the

door and turn around to close the door, ever so quietly. When you turn away from the door, you find yourself in "Your Favorite Place". This is a place where you like to go when you wish to be alone, where you can feel safe, calm, confident, and in control . . . Once you settle into this place, imagine yourself sitting in its midst . . . continue to breathe . . . and now, focus your attention on an object in front of you . . . how big is it? . . . what is its texture, e.g., rough or smooth? . . . what color is it? . . . how far away from you is this object? . . . continue to breathe and to focus on every detail of this object . . . then shift your attention to an object on your right . . . how big is it? . . . what is its texture? . . . what color is it? . . . how far away from you is this object? . . . continue to breathe and to focus on every detail of this object . . . then shift your attention to an object behind you . . . how big is it? . . . what is its texture? . . . what color is it? . . . how far away from you is it? . . . continue to breathe and to focus on every detail of this object? . . . then shift your attention to an object to your left . . . how big is it? . . . what is its texture? . . . what color is it? . . . how far away from you is it? . . . continue to breathe and to focus on its every detail . . . now, get a sense of what it is like to be in the 'center' of all of these objects . . . get a sense of how it feels to be in control . . . to feel confident . . . to feel safe . . . to feel calm and composed . . . then imagine that you rise from where you are sitting and walk toward the door . . . imagine that you reach for the door knob and turn it, opening the door . . . imagine that you walk through the door, turning to close it behind you, ever so quietly. Imagine yourself walking back to your chair and sitting . . . once you are settled in your chair, perform an 'up and down the ladder' from 1-5-1. When you have completed the ladder, open your eyes.

"SILENT AND CALM"
Perform as many of the exercises described above consecutively. Create a 'mental dance' in which you shift from one exercise to the next, to the next, and so on. You might want to put a time limit on the exercise, e.g. 10 minutes, 5 minutes.

"THE CENTIPEDE"
This is a 'walking meditation'. The final product will resemble a 'centipede' with numerous legs, walking quietly in rhythm, in a single file line to their next class. To begin, have everyone put all of their belongings away and stand, quiet and ready, behind their respective desks. Organize the departure from the room so that each row of students falls in line behind the row of students in front of them. Create a 'seamless centipede' so that all students ultimately form one line. Each student is to keep hands and feet to themselves as they walk in silence, focusing eyes on a focal point in front, e.g., the back of the student in front, a focal point located somewhere in front of the line. As the students walk, they are to focus their attention on their breathing, reflect on the last class, anticipate what will occur in the next class, or go to their 'favorite place'.

"THE 3 C'S: CALM, COMPOSURE, CONSISTENT"
The "Three C's" serve as key words that are used to trigger specific behaviors. "Calm" refers to the feeling that one has when they are 'comfortable in their own skin' (as in their 'Favorite Place'). "Composure" refers to the feeling that they have when they are able to remain 'calm' under pressure, e.g., test taking, when other students 'get in their business'. "Consistent" refers to the student's ability to remain calm and composed over time, e.g., hour to hour, day to day, week to week.

"RESPECT: SELF, OTHERS, SCHOOL"

Each student is instructed to identify three specific behaviors that he or she would exhibit for each targeted category, i.e., three for "self" (e.g., adherence to school dress code, eating correctly, stop temper before it boils), three for "others" (e.g., open the door for someone, pick up someone's dropped pencil and return it, use manners when speaking with teachers), three for "school" (e.g., pick up trash on campus, tell your parents something good about the school, put desks and chairs back in order before you leave the classroom). These behaviors are written in their respective planners, one for each category per day. Their successes are then recorded and tallied at the end of each day.

"THE SCOREBOARD"

This is a tool used by the teacher/investigator to quantify a subjective assessment of the classroom climate for each day. A 1-10 scale was established whereby 1 = the worst possible, extreme restlessness and 10 = the best possible, extreme self-control. The daily score was written on the board in its 'special place' and announced at the end of class to convey the "state of the union" for the day.

Methodology

Participant-observation was used to employ the event-recording method for data collection similar to that described by Tharp & Gallimore (1976) and Gallimore &Tharp (2004). Its specific application is best described by Milman who "placed herself in the back of the classroom and observed the teacher's actions and the level of group engagement" (2007, p. 7). In addition, the investigator also engaged in what Milman referred to as trans-situational observation, i.e., "casually shadowing students" (2007, p. 7). In essence, the investigator served as a teacher's assistant who roamed the classroom with the intent of facilitating the lesson of the day and observing student behavior.

By observing and recording specific behavioral patterns of the class, the frequency of off-task behaviors were clustered into specific categories, e.g., talking with a neighbor, physical contact with others, general restlessness as a group, tattling, getting in other's business, playing with possessions, lost in space/not following directions, comments from the "Peanut Gallery". The frequency with which the teacher needed to use various techniques to refocus the attention of the class as a whole was recorded as "teacher-directed refocusing". It was hypothesized that "time on-task" (concentration on the task at hand) could be inferred by measuring the frequency of 'off-task' behaviors (lapses in concentration, inappropriate behavior).

The clusters of behaviors were derived by applying various subscales taken from inventories that assess levels of attentiveness (e.g., The Pupil Behavior Rating Scale used by Tsuda, 1988), hyperactivity (e.g., The Conners' Teacher Rating Scale-39 used by Murphy, Pagano, Nachmani, Sperling, Kane, & Kleinman, 1998), attention deficit/hyperactivity disorder (e.g., The Diagnostic and Statistical Manual developed by the American Psychiatric Association, 2000). The actual identifying and labeling of the clusters to be used in this investigation were a function of the participant-observation process.

Analysis of the Data

Analysis of the data included averaging the frequencies/day of off-task behaviors for both the four days of pre-intervention data collection and the four days of post-intervention. The data was subjected to the Wilcoxon matched pairs test, a non-parametric

test that provides for the analysis of repeated measures (Berg & Latin, 2008). The Wilcoxon collapses the data reflected by each separate cluster of behavior without teasing out the differences between pre and post frequencies of each specific cluster of behavior. In addition, a traditional paired t-test was used to compare the aggregate means associated with the various clusters of behaviors. Results indicate that there were fewer off-task behaviors recorded in the post data set when compared to the pre-intervention data. There was statistical significance between the pre and post means associated with the various clusters of behaviors (t-test alpha of .047; Wilcoxon, two-tailed alpha of .037).

Specifically, the data indicated that there was a marked decrease in the frequency/day of "off-task" behaviors following the intervention. The need for "teacher-directed refocusing" decreased from a pre-intervention average of 22.75 times/day to a post-intervention average of 3.5 times/day (19.5%). Bouts of "General Restlessness" decreased from and pre-intervention average of 14.25 times/day to a post-intervention average of 2 times/day (12.25%). "Physical contact with others" was virtually eliminated. Instances of students "Talking with a Neighbor" decreased from a pre-intervention average of 10.25 times/day to a post-intervention average of 3.25 times/day (7%). Students experiencing "Lost in Space/Not Following Directions" decreased from a pre-intervention average of 9.25 times/day to a post-intervention average of 1.5 (7.75%). All categories of off-task behavior reflected a decrease in frequencies/day with the exception of comments from the "Peanut Gallery". The perceived classroom climate reflected by "The Scoreboard" improved from a pre-intervention average of 3.75 on the scale of 1-10 to a post-intervention average of 7.75.

Anecdotal reflections by the students also contributed to the assessment of the intervention. One student offered that "I use the *NSEW* if I start to get itchy." Another said that, "I used the up-and-down-the-ladder when I took the ILEAP test and it calmed me down. I even remembered how to draw a matrix!" One of the more problematic students told of the night he "showed my Mom how I go to *My Favorite Place*. When she tried it, she smiled." Teachers with classrooms located in the same extension of the building noticed a change in the behavior of the students between classes as they changed rooms. When one of the teachers queried one of the students as to what was going on, he told her that "We do the *Centipede* when we change rooms. It keeps us out of trouble."

Discussion

As has been noted by numerous scholars, the integration of experiential curricula that specifically address issues of off-task behavior on the part of the students has proven to be effective in increasing attentiveness. In essence, teachers should recognize that educational and behavioral objectives that target the teaching of attentiveness should be employed (Brigman, 1991; Masten & Coatworth, 1998; Wang, Hartel & Walberg, 1994). Indeed, teachers have found that classroom management is more effective when students are taught the specific skills of self-regulation (House et al, 2003). This is particularly beneficial when one considers the relationship between extended class time and the frequency of off-task behaviors (Pelligrini & Horvat, 1995; Stevenson & Lee, 1990). In short, the classic concepts of 'mass' versus 'distributed' schedules of learning are equally appropriate in the classroom setting as they are in settings that address motor learning.

The use of data reflecting the behavior of the class as a whole rather than assessing the behavioral patterns of each individual student could be perceived as a limitation of this project, specifically from a statistical perspective. Perceived inconsistencies in the accuracy of observations of the class as a whole might lead one to question the stringency of the statistical analysis and the method of data collection, e.g., repeated measures of individual behavior rather than repeated measures of the collective group. However, from a teacher's point of view, he or she must contend with the collective behavior of the class as a whole. In the real world, any student could exhibit a specific behavior (e.g., tattling) at any point in time without establishing an individual-specific pattern of said behavior over time. In other words, Johnny could engage in tattling only once during a specific class time. Later in that same class period, Sally could engage in tattling as well. The aggregate frequency of tattling would include both instances without each student developing a personal pattern of the behavior. The pattern of behavior for the class, therefore, is established as an aggregate while individuals do not necessarily establish a personal pattern for a specific behavior.

Reasons for the changes in students' behavior were attributed to a variety of sources. The commitment of the full-time teacher, Ms. Melanie Thigpen, was extraordinary as she not only facilitated the development and implementation of the program, but 'walked the walk' as well, i.e., participating in all activities and leading by example. The fact that the teacher-student ratio changed from one full-time teacher and one part-time teaching assistant to one full-time teacher and two part-time assistants greatly enhanced classroom management. The changes could also be attributed to the normal maturation of elementary school students. It should also be noted that the students were always eager to learn and that, at times, it was their eagerness that lead to disruptive behavior. Ultimately, the credit for the changing of behaviors lies with the students.

Pre-intervention	Day 1	Day 2	Day 3	Day 4	Mean of Freq/day
Teacher-directed Refocus	34	22	19	16	22.5
Talking with Neighbor	16	9	9	7	10.25
Physical Contact	2	0	3	0	1.25
General Restlessness	2	35	16	4	14.25
Getting in Other's Business	0	3	11	7	5.25
Tattling	1	2	3	4	2.5
Playing with Possessions	5	3	0	1	2.25
Lost in Space	6	8	18	5	9.25
Peanut Gallery	7	0	0	0	1.75
Scoreboard	2	1	5	7	3.75

Table 1. Pre-intervention data: days of collection, behavioral clusters, frequency/day of behaviors, mean of frequency/day for the week.

Post-intervention	Day 1	Day 2	Day 3	Day 4	Mean of Freq/Day
Teacher-directed Refocus	3	4	4	3	3.5
Talking w/ Neighbor	2	5	3	3	3.25
Physical Contact	0	0	0	0	0.0
General Restlessness	0	5	2	1	2.0
Other's Business	0	3	3	3	2.25
Tattling	1	2	1	2	1.0
Playing w/ Possessions	0	0	0	0	0.0
Lost in Space	0	2	3	1	1.5
Peanut Gallery	2	4	0	4	2.5
Scoreboard	9	7	7	8	7.75

Table 2. Post-intervention: days of data collection, behavioral clusters, frequency/day of specific behaviors, mean of frequency/day for the week.

Itemized Means	Pre-intervention Means	Post-Intervention Means	Difference in Means
Teacher-directed Refocusing	22.75	3.50	-19.5
Talking with Neighbor	10.25	3.25	-7.0
Physical Contact	1.25	0.00	-1.25
General Restlessness	14.25	2.00	-12.25
Getting in Other's Business	5.25	2.25	-3.0
Tattling	2.50	1.50	-1.0
Playing with Possessions	2.25	0.00	-2.25
Lost in Space	9.25	1.50	-7.75
Peanut Gallery	1.75	2.50	+.75
Scoreboard	3.75	7.75	+4.0

Table 3. Difference between Pre and Post Intervention Means.

	Paired Differences					
				95% Confidence Interval of the Difference		
	Mean	Standard Deviation	Standard Error Mean	Lower	Upper	t
Pair 1 VAR00009 – VAR00016	4.92500	6.76598	2.13959	.08491	9.76509	2.302

Table 4. Paired Samples Test. (alpha significant at 0.047)

Ranks		N	Mean Rank	Sum of Ranks
VAROOO16-VAR00009	Negative Ranks	8a	6.00	48.00
	Positive Ranks	2b	3.50	7.00
	Ties	0c		

Table 5. Wilcoxon Signed Ranks Test

Test Statistics (b)	VAR00016 – VAR00009
Z	-2.090a
Asymp. Sig.(2-tailed)	.037

a.	VAR00016 < VAR00009
b.	VAR00016 > VAR00009
c.	VAR00016 = VAR00009

Table 6. Wilcoxon Test Signed Ranks Test Statistics, based on positive ranks.

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Laser Focused: Insight into the Mental Preparation of an Olympic Gold Medalist Rower

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Abstract

In the 2008 Beijing Olympics, the United States female rowing team brought home the gold medal. There is no question as to whether or not these champions were prepared – physically and mentally – for competition. However, there is still much to learn about the specific mental preparation strategies and mental techniques used by Olympic champions. While several researchers have identified the mental characteristics of successful athletes (Gould, Eklund, & Jackson, 1992a, 1992b; Orlick & Partington, 1988), much of this research has focused on athletes' use of psychological skills, including imagery, attentional control, controlling anxiety, positive self-talk and goal setting (Bertollo, Saltarelli, & Robazza, 2008). Despite these studies, there is a dearth of research focusing on the mental preparation strategies of Olympic champions. This interview provides an in-depth look at the thoughts and mental preparation strategies of one female Olympic Gold Medalist rower. Throughout this semi-structured interview, she offers valuable information regarding her mental preparation strategies, building confidence and trust in her teammates, and her degree of focus.

Introduction

The purpose of this paper is to provide insight into the mental preparation strategies and pre-race and in-race thoughts of Caryn Davies, a 2008 Olympic Gold Medalist. This manuscript includes the transcript from the interview that was conducted by one of the authors regarding Caryn's experience before and during the 2008 Olympics in Beijing, China.

Caryn Davies is a 26 year old professional rower. She began rowing at the age of 14, when she began training to be a member of the national team. Caryn has competed in the 4, the 8, the quad, and the pair in different professional competitions. Her Olympic debut was in 2004 but she did not earn a spot on the podium. Recently, her team won the Gold Medal at the 2008 Olympics while she rowed the strong seat.

Interview

Emanuel: Can you tell me about the grand finals of the 2008 Olympics?

Caryn: Well, going into it, going down into the boat house to start our warm up, we were all pretty confident that we could win if we kind of stuck to our plan and trusted in each other. So, it was a very happy kind of atmosphere. We were nervous of course but it wasn't a bad kind of nervousness and so that kind of carried through. One of the stories that I could tell is about our coach. When he gave us our pre- race speech, he said basically, "Just do what you always do. You've done this so many times before, come out on top. You know how to race. [It's] just another race- just treat it like that". So we were pretty relaxed, got to the line, knew that we could get control of the race early, which we did, and then just kind of kept pushing away from the rest of the field. There was really never any doubt in any of our minds that we would win, especially once the race started and we were ahead. It definitely made it easier to be confident in yourself when you are ahead. The only time I ever worried was about the last ten strokes of going to catch a crab or something from being tired (authors' note: catch a crab refers to a rower getting her oar stuck in the water which can slow the boat down drastically). So thankfully the line came before any wheels came off or any springs popped out or anything. Then after the race our coach met us on the dock, and he said, "Yeah, you know what I said about it being just another race and all that, that was bull. This is the Olympics and you just won a gold medal!" So, that was one of my favorite memories…post-race.

Emanuel: You said that you were confident going into the race, can you tell me more about that confidence?

Caryn: Well first of all I think you HAVE to believe you can win in order to win. If you don't believe it then you won't do it. So, that was part of it. It was sort of imperative to be confident. We were also the favorites [since] we've won some. We've won the World Championships the two years preceding and we've won some early season races so we really had every reason to expect the best from ourselves. I think also there was the trust in each other that we had developed through racing over the years, racing each other, racing together against other countries things like that. I just think we were really well prepared.

Emanuel: Then you also said going in that you were a little bit nervous. How did you overcome that? Did you do anything in particular to overcome those nerves?

Caryn: Not really. I think you need a certain amount of nervousness. You don't want to be perfectly calm because then you know you're not ready. You might get dropped at the line or something so there's a certain amount of nervousness that I welcome… you know, gets the adrenaline flowing, blood pumping things like that. You just need to make sure you don't let it run away with you so you know, I do what most of them do, listen to music, deep breathing, things like that.

Emanuel: Can you tell me about your preparation leading up to the 2008 Olympics?

Caryn: I mentioned a little bit of how we spent a lot of time racing each other in pairs, spent a lot of work in small boats. We didn't actually row the eight that much that year. I think we were… one of the best prepared teams physiologically. I think [our coach] does a very good job of planning our training so that we're the strongest we can be.

It's one of those things where you're never really sure, whether you're doing the right thing. You just have to kind of trust, and in the end I think it's that trust in your preparation that makes the difference.

Emanuel: Can you tell me about your pre-race preparation, in terms of the hours before the race or even the minutes?

Caryn: Well we raced in the afternoon, so we had pretty much the whole morning to just wait, and that can be some of the worst time because, you have all this adrenaline and excitement and nervousness and there's no outlet for it. The day of the race, we were in the hotel, watching some of the races on T.V., painting our toe nails, things like that; [trying] not to eat too much for lunch so that we wouldn't puke. And it was almost a relief when it was time to actually go down to the boathouse and start getting ready. And then from there it's a routine. [We've] done it so many times before, you just know exactly what to do. We went for a run, did some stretching, did some core exercises, and had a boat meeting, all those kind of things.

Emanuel: Can you tell me about your state of mind JUST before the race?

Caryn: I kept telling myself that it was gonna be fun. Like I said, I knew we were prepared. I knew we were ready and I didn't think of it as like "THIS IS A BATTLE, THIS IS COMPETITION" you know, "I'M GONNA HAVE [FUN]!" I kind of thought of it as a chance to show off how hard I've worked and how much we've learned. I heard the crowd and I was like, "AWESOME! ALL THESE PEOPLE ARE HERE TO WATCH ME! I'm gonna have fun out there". When I look over and the Romanians are right next to me, I'm gonna say, "AWESOME! I'M GLAD THEY'RE

THERE!" because that's just gonna make me go that much faster. So I was really looking forward to it in a way, just having fun.

Emanuel: And can you tell me your state of mind during the race?

Caryn: During the race, it was kind of more just laser focused. We had a plan, we were ready, and then all you had to do was execute the plan. [I] just focused on the stroke and what was going on at that very moment.

Emanuel: You said "laser focused". Can you tell me more about that?

Caryn: [It's] one of the things you have to do in a competition like ours, where you can't have any direct contact with your competitors and you can't affect them. You just have to focus on yourself and what you're doing so, I was just focused on [my teammate] in front of me and on the boat underneath me and on my blade in the water. When I talk about laser focused, it's like the ability to just get rid of all the other distractions around me.

Emanuel: Can you talk about any mental skills you've used leading up to, just before, and during the Olympics?

Caryn: In the training leading up to the Olympics… in the days when things were not going so well, I had to learn how to stay positive. And say to myself in my head "positive" [because] it's easy to have a bad day and kind of let it spiral out of control and think about all the bad days you had and how you sucked as a rower or something. Especially with injuries, you can get frustrated really easily. So that was one thing that I worked on with a sport psychologist at the Olympic training center. He gave me sticker of a honey bee [which] I put on my

foot in front of me and it was to remind me that whatever you say to yourself you can either make honey with it or it can sting you, depending on what you say and whether it's positive or negative.

Just before (the race) I kind of said to myself, this is my time to show off and have fun…and just be confident in each other and our skills. And then during I was just focusing on the moment and don't think about the finish line, don't think about what the other rowers are doing. Just think about strength and kicking now and your own boat.

Emanuel: You said that in leading up time you did specific things to stay positive and you mentioned the honey bee thing. Was there anything else you did to help with that positive mind set?

Caryn: One of those things, specifically rowing in pairs, which we did a lot throughout the year, is you not only have to deal with yourself and your thoughts, you're also dealing with your pair partner and you're very much in tune to what they're doing and how they're feeling. And sometimes if your pair partner gets frustrated, it's easy to get frustrated yourself and vice versa, you know, you can make your pair partner frustrated. So I kind of worked a lot on being able to either let that go or change how your partner is feeling about things. I'm told that I'm very good in that where you're calling the practice and talking about what else you need to do technically. I worked very much on the tone of my voice and keeping it non-judgmental and positive and also providing positive feedback at least or when it's necessary and called for, as well as saying what we can work on it. So [there's an] intimate partnership when you're rowing in a small boat.

Emanuel: In terms of your mental preparation for the Olympics, what stands out to you the most?

Caryn: Well, I can tell you what stood out for me, this year in contrast to four year ago. Four years ago, when I got to the Olympics, it was my first Olympics. I was just overwhelmed and not in a bad way, in a good way but overwhelmed by the excitement, and you know the flags, and the cameras and everything. And I was like "OH, THIS IS AWESOME!" but in a way I think I almost let it affect my focus on the job, the task at hand. You know like, "oh my god we're here…" Whereas this time, I said, "Okay I know there's going to be a lot of flags, a lot of cameras or whatever but I know what I'm here to do and that's to win". So I felt more kind of centered in being able to focus on the task at hand. I hate using the word focused so many times but just be centered and knowing what I was there to do.

Emanuel: You said you have your focus in the boat and you just focus on your job and stuff like that. When you were weren't in the boat and you were dealing with the environment, how did the focus work then?

Caryn: All the times that we're not practicing in the boat, you still had to be thinking about how every choice you make, everything you do affects your performance. You have to rest, you have to eat right, do all those things. And once you've checked all those things off the list, [it's] like, "Yes I'm doing all these things that are appropriate and good for me to do". Once you've done all that, then it's also important to be able to kind of let it go and mentally get away from the pressure at times. I did that by going and hanging out with people from others boats, guys on the men's team. Also one of my ways to escape is by kind of planning my future beyond the Olympics because it re-

minds me that this is not the "be all end all" of life. It's really awesome that I'm here but I have so much more in my life so I was looking on Craig's list, looking for an apartment when I got back and I was looking on websites for law schools and figuring out where I want to go to school. Sitting in the hotel room in China doing all this, it helped to get my mind off of it when it was appropriate to do so and to relax.

Emanuel: Looking back on the Olympics, how do you feel about your personal mental preparation?

Caryn: I'm really proud of myself this time around. I feel like I did everything right. Obviously it's easy to say that when you win, you know, had we not won, I don't know what I would be telling you right now. You know, I could have done everything the same and had we not won, I'd probably be regretting something somewhere. But that's one of the things I've thought about during the year and talked about with this psychologist I was working with; you just want to have no regrets. Whatever happens, you want to know that you did everything you possibly can to make sure that you perform. And so yeah, I mean the training, that's up to the coach to figure out. But the mental preparation, that's up to me. And that's what I'm most proud of is that I just feel like I went to the psychologist and, kind of checked all the boxes and did everything the way you're supposed to and the way I knew would work for me.

Emanuel: Looking back on these same Olympics, how did you feel about your mindset?

Caryn: I think my mindset was in the right place and that was…I know what I'm here to do. I'm going to have fun doing it, and you know we're just going to show every-

one how hard we've worked. So it was just, it was like a calm, centered focus.

Emanuel: I'm going to backtrack a little bit because I think that's important. You said you had trust with the teammates. Can you tell me about that trust?

Caryn: Yeah. I think it's really important to trust your teammates because what one person does affects what everybody else is doing so much. Even in practice, like if the practice isn't going well, it's easy to start blaming people or thinking this person is not doing this right. Or why isn't this happening? You know, it's not my fault, it's the [other] person's fault. And that's just not going to get you anywhere. So, we are a team [and] we're really lucky. We all got along. We all had a lot of respect for each other so it was easy to have that trust. But I think even if you don't like each other, you have to be able to trust that everybody's giving 100% because if you think [someone's not giving] 100%, then that's just going to eat away at you and start the negative spiral downward. So we got that trust by training together for years and just knowing that having seen each other race, you know everybody is going to give everything they can.

Emanuel: And then lastly, is there anything else that you'd like to share about your rowing experience that you haven't shared so far?

Caryn: I don't think so.

Summary
Caryn Davies described several mental preparation strategies that she used throughout her Olympic rowing experience. First, having a high level of trust and confidence in teammates was extremely important to Caryn. This trust came from preparation and

past successes with the same teammates over an extended period of time. For example Caryn said that years of training in the same boat allowed the team to observe their teammates' behaviors in competition as well as to establish expectations for the team. These expectations were heavily influenced by their confidence and trust in each other.

Second, she believed that her personal mental preparation was her biggest accomplishment because she did all she could to mentally prepare. Her mental training routine included her pre-race checklist (e.g., rest, eat the right things, see sport psychology consultant) and relaxation techniques. Specifically, she relaxed by listening to music, performing deep breathing exercises, and planning for her life after the Olympics. Caryn believed it was important to get her mind off of the race at appropriate times.

Third, her positive perception of the entire event kept her going throughout the Olympic experience. She knew her previous trip to the Olympics was an overwhelming and unsuccessful experience. In 2008, she used self-talk to view the Olympics as a positive experience as well as a chance to have fun and show what she and her teammates could do. She constantly reminded herself to enjoy the experience, and looked forward to exhibiting her abilities against her opponents.

Finally, her degree of focus which she referred to as "laser focused" was a critical factor in her gold medal performance. She described laser focus as the ability to get rid of all other distractions around her (e.g., flags, cameras, opponents, and the finish line) and stay focused in the moment. She maintained a calm centered focus on the task at hand which included her teammate in front of her, the boat underneath her, and the blade in the water.

This case study highlights practical information regarding one female gold medalist's thoughts, focus and mental preparation strategies before and during a successful Olympic competition. This interview can not only benefit future Olympic rowers but also rowers and other performers at all levels of competition. In addition, sport psychology consultants and coaches who are working with rowers or other athletes may gain a better understanding of what is needed to improve their athletes' focus and mental training strategies.

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Moments of Excellence In a Speed Sport – Interview with a Downhill Speed Skier.

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Abstract:

This article presents an interview that was conducted with a successful Olympic downhill speed skier. It explores the speed skier's views about speed, risk, optimal regulation of movement, performance excellence, the role of the unconscious mind in speed disciplines, and mental links to excellence.

As expressed in the interview with the formula one motor car racing driver, speed seems to become an increasingly prevalent influence in many domains of our lives. Increased speed and stress has become a fact of life. Effective coping strategies to respond accordingly to these increased demands are discussed in leaders' circles around the globe.

The following interview aims to further shed light onto practical coping strategies that are developed and used by speed experts. The micro-world of speed skiing, a world where speed and stress is a dominant performance-related variable is used to pull out some lessons about how individuals can better function under other stressful high-speed conditions. The interview focuses on the ability to regulate movement in high speed situations. A successful Olympic downhill speed skier shares his ten years of experience in his field. He discusses his particular

path to excellence in a discipline where optimal mental functioning under high stress is crucial.

For those of you who are not familiar with the discipline of speed skiing, it should be explained that it is a special downhill skiing discipline. The goal of the athlete is to reach an ultimate high speed on skis and therefore get straight down a steep hill in an aerodynamic position over a distance of approximately 1.5 – 2 km. At the end of this distance the top speed is measured during a distance of 100 m. The world record currently is around 250 km/h. A small mistake in the regulation of movement at these advanced levels of speed can be life threatening.

Despite the obvious danger of the discipline, athletes increasingly take more risks to push boundaries and keep up with the best competitors in the field. In the search for new

speed records they are constantly pushing their comfort zone. Racing at the very edge at these speed levels requires athletes to mentally, emotionally and physically plan and regulate movement accordingly. These plans and strategies seem to be critical for them to get an excellent and safe performance. The special objectives and circumstances of this discipline create an environment where individuals get a sharp sense for exploring and building mental strategies to optimally regulate movement.

This case study can guide us to further understand mental practices in speed situations. Whereas a Formula 1 motorcar race driver is talking about the regulation of optimal movement in a time window of two minutes (needed for one lap) or for a two-hour race on competition day, the downhill speed skier is focussing all his mental strategies on a time window of around 14 to 18 seconds. The compression of the time window seems to force the individual to even more thoroughly plan and execute.

The interviewee elaborates on some of the specific elements of "Peak Moments in Sport" that are reported broadly in sport psychology literature by numerous authors. They can be summarized and structured as follows.

High level of joy and fulfilment.

Feeling of unity, connection & fusion with the environment.

Altered perception of time; active transformation of time and slow-motion.

Reduced ego and harmony.

Total absorption.

High level of performance.

Besides these accepted six core topics the interview with the speed skier offers further insights from a practitioner's standpoint. He specifically mentions two additional phenomena that seem important in downhill skiing, namely:

Overriding instincts.

Applying consistent strategy.

Overriding instincts

The interviewee describes his experience of how he learned step by step to delegate the movement regulation to his autopilot, or in other words to his unconscious mind. In detail, he shares his personal relationship with fear and how he was able to actively learn to "have no fear". He talks about replacing fear by "fun" through a conscious decision. Overriding the natural instinct of fear seems to be central to excelling at the highest levels of speed. Experiencing fear is human. It is a normal reaction of the organism. This human function was originally developed as a security function. The speed skier vividly describes the paradoxical nature of the feeling associated with this process and how this remains a career-long challenge. He describes authentically the process of how these insights evolved and how important these findings were for him to personally experience the shift from having control to allowing chaos - to let the movement happen - and feel right and full of control and power in the chaotic situation. He highlights the ability to allow the unconscious mind to lead the movement regulation - a state where the individual ego steps aside (or seems to simply be too slow). This is the moment where the power and the ability of the expertly trained unconscious mind are unleashed.

This description may remind us at moments in daily life where we use our abilities in the

autopilot mode while driving a bicycle or driving a car. The only difference is that the speed skier describes the conscious use of the autopilot mode in a life-threatening discipline where the special challenge is to allow the autopilot to take full control, despite the inherent danger of the situation. The fear of losing control normally is larger than the trust in the desired autopilot mode. To overcome the fear in these moments – or what he calls: "get larger than fear" – seems to be a key challenge in speed disciplines. To get larger than fear was his overall objective that took him years to cultivate. And by getting to that fearless alert state, the optimal movement in autopilot mode and the entrance into "the zone" followed automatically. His arguments sound reasonable, even logical and easy to relate to. But everyone that experiments in comparable challenging disciplines to get purposely into the zone is talking about the paradoxical nature of the phenomena. It seems that the more the athlete wants to get there the more the conscious mind refuses to let it happen.

From the many interviews with highly experienced speed experts, I consider this description one of the most practical explanations of the power of the unconscious mind. It may remind us that at the limits of the conscious mind are the limits of the ego. It seems important to remember that optimal movement can only be achieved when the unconscious mind is trained up to the level of expertise that it will be able to fully take charge of the movement regulation. The interviewee experienced this powerful source in a situation when the conscious mind was pre-occupied – and literally was too slow to analyze, plan and regulate the appropriate movement.

And looking at a bigger picture this can happen in any discipline where movement has to be precisely executed. Perfect move-

ment regulation takes place when the unconscious mind dominantly takes charge of the movement regulation. The only prerequisite that has to be fulfilled is that the athlete has to be expertly trained in the execution of the movement. Only if the individual has achieved an expert level will the unconscious mind be able to expertly execute movement programs.

Applying consistent strategy
The interviewee further describes how he consistently managed to purposely get into "the zone". He outlines a structured process that helped him to routinely duplicate high performance. His personal strategy has been developed and fine-tuned over hundreds of hours of training and competition and can be seen as a unique approach. However it may be worthwhile to reflect on this individual approach knowing that there may be alternative solutions.

His strategy seems to have its roots in identifying, managing and minimizing the risk that is inherently combined with speed disciplines. By "applying a consistent strategy", he means to constantly follow the same preparation process prior to the execution of a run. By preparing himself consistently in the same manner for the upcoming performance he creates a powerful routine that allows him to increase his feeling of control. By following a precisely defined routine prior to the movement, the risk of making mistakes seems to get smaller and the satisfaction and the probability to get into "the zone" and experience "flow" increases.

What especially strikes me in this interview is the authentic style of his description. As a researcher it is impressive to experience athletes with such a high degree of personal reflection. It may even be that the high level of expertise in the mental game is supported

by the inherent danger of the discipline – or the more danger involved, the higher the degree of reflection becomes. Such sport activities may even have a positive impact on the development of a performer's reflective side of his personality. At least the shared philosophical insights such as "allowing the perfect run to happen – do not try" nurtures this assumption.

The added value of this interview – in my personal perspective – is derived from the fact that a highly experienced expert shares his insights and talks about (1) how he achieved high levels of excellence and (2) how he consolidated the process to consistently get there over a longer period in his career. The form of a qualitative interview is considered to be an ideal instrument that allows for capturing these authentic descriptions. By reflecting real, lived experiences, we can unleash the power of learning at its best.

By publishing such interviews, I always carry the hope in mind that the discussed strategies and moments of excellence may have an influence on the reader's perspective. My vision is that the findings are not limited to speed sports but rather can be seen as universally applicable to speed situations. I believe that the findings can be transferred and applied in any performance arena where speed and stress are the dominant performance related variables.

Gustav: Could you talk about speed in your particular sport? What does it feel like?

Speed skier: Speed skiing is not a timed sport. It is a sport where the speed is at the bottom of the track. The speed track is one hundred meters long and takes roughly two and a half seconds to go through the whole track. So you are dealing with speed in excess of over two hundred kilometers an hour. We do not start there. We start with one hundred and sixty and then go up slowly. So there is a qualifying round each time and the faster you go … the track takes around fourteen to eighteen seconds to go down this run and the beginning is easy, the first three to five seconds you just pick up speed and then you get to one hundred kilometers per hour to one hundred and fifty per hour and when you reach around one hundred and ninety per hour things start to get difficult - because things happen so fast that you stop reacting. You start switching to a mode of being in the speed. Not being able to put the fingers exactly what is going on. A lot of it is kind of "soft focus". So the speed is completely different.

Gustav: What does speed mean to you?

Speed skier: It scares the shit out of you. You know I was so terrified of scaring myself. It depends on how you focus when you are racing. It becomes - how fast can it go, how fast can I go? How much faster can I go? So, it is always of interest to become comfortable with speed. Once you are good at this, then speed becomes power. It became a total sense of power. When it was there I got the feeling that I could do anything. So it was a real shift, it was like the difference between acting confident and being confident. And I started to be confident being confident. So I decided to be confident at speed and then experience that shift.

Gustav: How did you get interested in speed sports?

Speed skier: Well, two ways. One, I always had a philosophy of trying anything once, when an opportunity came along. That was how I tried luge. I actually raced the luge a couple of years but I never tried bobsled. And then the second part was when I tried

speed skiing. I heard that it was a demonstration sport in the Olympics. And so my fear of the speed was put aside and the greater motivation was to compete at the Olympics. So I guess there is a third component with speed. I like to be larger than fear. So if I can become greater than fear, which is a great feeling. …

Gustav: How did you learn to handle speed?

Speed skier: My mother took my younger brother and me skiing for the first time when we were very young. We were six and seven years old. My brother pointed his skis straight down the hill and went. And I was very methodical. I went step by step. I went a little bit, felt comfortable with it, and went a little bit more, felt comfortable with it. And even in training for speed skiing, a lot of the guys move up very quickly to try to go faster and faster. I always wanted to become very comfortable at say hundred and seventy one hundred and eighty kilometers an hour. And once I got comfortable in training then I moved up. So many of the other teammates would start higher but I would go where I felt comfortable with speed and then move up. You know you go fast and eventually, you go fast so many times that you start to see more of what I was always looking for. So I went little by little and repetition.

Gustav: Could you let me come with you in such a moment and describe in as much detail as possible what you see, experience and feel?

Speed skier: It all starts at the start gate … You pick the line you want to take. There is no timing right at the top as I mentioned. … You make sure there is no crosswind. At that moment you are just thinking: calm down and relax, but also at the same time to

pump up, if that makes sense, you want to calm your mind down but your body wants to be tuned up, to be ready. When you leave, you want to explode out of the gate onto the course. At that moment you have to be very supple and strong at the same time, like a willow tree versus an oak tree. You have to be so strong that you are also soft. Now in that phase you want to ride a "flat ski" and it is very easy. You go from zero to one hundred in three seconds. A Ferrari can do it in four point two seconds. So you pick up speed very quickly. The mind just starts to race, it starts to go, the mind says: escape, escape; and you pick up speed. You know you are already three to four seconds into it. At about five to six seconds, things start to go so fast that you start to not see things anymore and it starts to wipe by in about eight or nine seconds. Then you are at about two hundred kilometers an hour. And at two hundred kilometers an hour, everything is a blur. You start to look as far down the course as you can; your heart is beating stronger and stronger, faster and faster. I forget if I am breathing or not when I'm going down the track. I am in a state where I do not know if I am breathing. But I can hear myself grunting and feel myself holding it all together. Riding a flat ski is very fast but very unstable. Flat ski is like this… You start to wander. At high speed they start to feel like spaghetti noodles. You can't feel it every once in a while. Mental toughness is everything because you have to hold your body in an aerodynamic position. But that is not a safe feeling, the aerodynamic, because you are looking at the world with your head down looking past your eyebrows. You are also looking at holding your hands together. If you separate your hands only a little bit it cuts your balance. You actually catch the wind and it turns you around and you feel like a parachute. And it completely spins you around. It is crucial to overcome instinct, and I mean true instinct, at this time.

You have to override instinct and I don't take that lightly, because the instinct is to throw your hands out to catch your balance. But you can't do that. You have to have the mental toughness to hold an aerodynamic tuck without actually having any instinct to grab your balance, if that makes sense. What happens is … the question is: how do you overcome instincts? How do you not do it? How do you not have instincts to open your hands?

Gustav: Do you train that? Do you try to do that?

Speed skier: Oh yes. Everything I did was trying to overcome instincts. For example, when I was mountain biking, going down the hill, I would try not to have instincts to hold on the break. Or I would have this kind of training in free skiing. I went out in slalom skis and then went really fast. You know, these "things" are all over the place and you start to create a calmness of the mind although chaos is going on around you. And at two hundred kilometers an hour, everything is going so fast that you are overriding instincts. And it is the zone. The scientists call it "flow" or "the zone". And you actually pop into flow at this moment where it's all powerful, almost overwhelming. You cross first beam, you cross second beam. You know that you crossed it. You can't really see it but you know that you crossed it. You put your hands out and stand up. You get a blast to your chest and then slow down. When slowing down the adrenalin rush comes. This adrenaline rush is probably that addicted part of the speed sports. My feeling is that the release of the adrenaline happens after the event. The adrenaline rush hits me only after the event, not during it. People, who say it must be the adrenaline rush, may think it is during, but I do not believe that, … I do not know, medically … the rush comes after for me.

Gustav: You talked about flow and the zone? … What button do you have to push to get into the zone?

Speed skier: I'm not sure there is a button to get into the zone. It is more of a doorway you find in the dark. The zone is … I equate it to fun. Remember a time when you have laughed so hard, when things had been so funny, when you completely lost any sense of what was going on around you. You could not have possibly done that on purpose. If I said to you that I want you to laugh that same way and have that fun now, you couldn't do it. You can't press the button and do that deliberately. You cannot do that with the zone either. You can set yourself up into an environment, where you can mentally open the door. When the door is open and you know it is open, you actually pass through it. It is natural. Though, for me to get into the zone, I always had a pattern, a pre-race pattern. And then when things are going right down the track, that is a natural transition into the zone. So I always allow that to happen.

Gustav: Let us speak about a situation in training or competition, where you thought that entrance into the zone was just easy or natural, a situation that you never want to forget for your whole life. What was it like before the start? Can you describe it?

Speed skier: I have two stories. The one is humorous and the other just happened on its own. You saw the videotape of the pig story? (Yes) So I do not have to tell you the details. This guy, pig, had distracted me so much that in the approach to the track, the mind was approaching that zone. Passing through that doorway to the zone, all of a sudden – the conscious mind said I am a pig, I am a pig and I started to think that. This was so funny. Now because that was happening within seconds, three or four seconds

that seemed like a lifetime, I was actually so humored at the fact that this was happening, that I started to laugh. The conscious mind was so occupied with the pig thing, which the unconscious mind was allowed to come forward with all the mental training that I had done to that point. When I got to the bottom of the track and I heard my speed, I was absolutely amazed. … The more I started to think about what was so funny on the way down the track, the more I remembered the pig thing and I started to laugh again. I said to myself that I couldn't believe that. So I had actually been preoccupied by having so much fun on the way down the track that I had skipped into the zone. Another time I broke the national record and I wasn't even trying to break the record. I simply flipped into the zone and when I got to the bottom of the track, I had that feeling of extreme, complete power. I remember thinking I could be a world-class figure skater and I do not know how to figure skate. I remember thinking I could do anything. Because I had that feeling of anything is possible. Right now, I remember that feeling as you probably do when everything works so well, you feel so good. … Before the start, I would sometimes get a premonition or a feeling that this would be a great run. I would have a physical anchor technique that I attached to that feeling. The physical anchor was an "ok" sign with any fingers and thumb. I used this anchor later when I needed an especially good run in a final. The anchor would often bring back the feeling of "this will be a great run".

Gustav: Could we focus on these one hundred meters, when the highest speed is taking place? Could you describe your feelings and thoughts shortly before that and during the zone?

Speed skier: Sensory overload … The conscious mind doesn't handle it. I go into autopilot here. … There are a lot of things coming to my mind. A lot of factors play into that speed trap. Everything has to happen well up to that point. If everything happens well up to one hundred meters, if you reflect in your mind that everything has gone just right, this is the place to just allow it. You let it go through. Do not try. The second you try, it gets worse. So it is allowing the form to happen through the trap. If things have not gone well, if there have been some mistakes up to that point, it's kind of a salvage, some sort of placement so I know I won't make it any worse. ... You can't salvage a little bit and then make a correction for the next run.

Gustav: It's the ability to forget?

Speed skier: Oh yes. You know it has happened. The focus isn't on that but the focus then becomes, ok. I know this has happened, but what has to happen here. And it is the same kind of thing, allow but do not try.

Gustav: And what is the feeling in there?

Speed skier: Gustav, it is happening so fast, it is such a soft focus. Time has no meaning. It is pure chaos. Imagine the wind being so thick, you feel being dragged under water. Imagine the ski moving so violently, that it may disintegrate your bindings. They may just pop off because things happen so violently. And when I say chaos, I mean pure chaos is going on around you. When you are in a perfect aerodynamic tuck and you are sliding through the chaos, there are feelings but there is no feeling. It is this paradox.

Gustav: Could you describe what you mean with paradox?

Speed skier: Chinese call it Ying and Yang. The paradox of opposite is balance, matching, and harmony. Here, it is chaos with

flow. So much is happening. So much chaos is happening that you can get sucked into the chaos and get consumed by it. And at the same time, you are in such a quiet state mentally that, if you are in the zone, you are simply in that magic moment. You think it lasts forever. You know chaos surrounded by the zone. It is a definition of peak performance.

Gustav: Do you remember where your focus is in the zone? What do you really see?

Speed skier: In flow, there is no thought, as we know it. ... It is understanding or thought on a higher level. Everyday, we drive, order lunch. The definition of focus is what we look at in time. In a speed sport, there is no focus. You focus on an experience. You have a total sensory focus. With the feeling, you are allowing the sensation of the skis, not just what the skis are doing but what the wind is doing and what your hands are doing. If for any second you started to focus on any one thing like what are my hands doing - then the focus is taken off your feet. So you have distracted yourself from the total focus of the feel. Then you can bring the other senses. What do you see? Do you see one thing in particular? But when you start to focus on one thing you start to gravitate to that one thing. … Then the other senses, what do you hear? So you do not focus, you focus on everything, it is a soft focus. So you turn into the soft focus. You are taking it all in and allowing it.

Gustav: You talked about experience, about letting it happen. How do you feel your body and your mind then, how do you feel yourself?

Speed skier: The feeling is almost as ... existential. Where you are actually outside of your body ... It is the feeling of not being in your body. But let me add this, this is a …

this thing doesn't happen without hundreds of hours of physical and mental training and to me, mental training is the cornerstone, because I was able to experience the perfect run through visualization. I don't just mean seeing but having an experience of going down the track feeling the skis, allowing it to happen but also allowing the unconscious mind to create the perfect scenario. I use the phrase "being in harmony with perfection". And I always wanted to be in harmony with perfection. And what that means is the wind is a certain way, the shape of the mountain is a certain way, the body is a certain way and I am simply in harmony and flowing with them.

Gustav: Synchronized?

Speed skier: Completely synchronized. … First, you have to learn to drive and then you have to learn how not to drive. It is much too fast. You have to delegate (laughing).

Gustav: What can you say about the energy level being in the zone?

Speed skier: The energy level is interesting. Thought is energy. Materials are energy. Everything at its basic level is energy. The zone is the very essence of thought and performance at its most perfect level. I cannot give you a black and white answer because I would do a process before I started. It's a five-point process. … Because I say: get there early, so you reduce stress. When stress is low, it is a great time to visualize what you want to remember. … And then I say the fourth one is the decision to have fun. The opposite of stress is fun. If there is too much mismanaged stress, the performance and results go down, so the opposite of stress is fun. If fun is present the performance and results go up. There is a step between the visualization and the fun and I call it the "O-technique". I would actually

imagine myself ... maybe two or three minutes before the run, I would close my eyes and imagine myself going out of my body. I would go up into outer space. I would see the earth. I would feel myself fly. So I would have my eyes closed. You know what the other athletes look like. But I would be imagining myself floating over the earth. I would look up and I would see energy in the universe, and I would feel a swirl of energy, going like this. I was not pushing, it was happening. I allowed it to happen. It was harmony in perfection. I see this "O", almost like a tornado, screwing up and right through the top of my head, right through the whole body. The whole body was getting fully filled up like a gas-tank of energy and I felt a lot of vibration. I fueled up, fueled up and then I started to wrap myself around it. I started to do back flips, spinning. I started to fly around the earth and then I started to come back into my body and then I was at the race, ok. That is bizarre. Not many people understand that, but what I wanted is to fill myself up with energy, and then I made the decision to have fun. … I am just having fun. I'm not going to push. I'm not going to try. On the way down, at the second part, the energy is synchronized. It feels like wave patterns of music. If you hear a tone that is here … iii …and a tone that is there … eee… If you put these together it goes …ieieieieiei. It is not synchronized. You would hear this. But if these tones are the same … iii … iii… like this, the tones are the same and synchronized. That is the energy that I want to feel. And I promise you, there aren't many athletes that do this in speed skiing.

Gustav: That is very interesting to hear from you.

Speed skier: I had something interesting happen. I don't know if that has something to do with your thesis. But it shows the foundations of my philosophy that I took forward to make the Olympic team. I watched other athletes and what they had to go through to reach quality. I watched what they did politically to screw themselves to not get on the team. They pissed off the coach or someone in the association. So I started to get a philosophy that I had to be the best in my country. If I am number one, no one argues. I picked who I wanted to be my mentors, because if the coach was over here and I did not like that coach, I went over there. And with that philosophy, I realized that the responsibility was mine. And I had them because I started at a late age. I had the maturity to go … If that is the case I'm not going to go where the coach wants me to go, I asked myself: what is next? I went to the library and researched. And I split it up into different areas. I researched aerodynamics, I researched waxes, drag co-efficients and I searched documents and papers and books on these topics. I made myself a student of these. Then I applied the strategy. I was not just looking haphazardly at these but everyday I would receive feedback from experiences and then I started to have a complete knowledge. That same research went with mental training. When I talk about things that I used in my mental training - like the "O-techniques" - this was a result of looking at various types of research. I realized when there is energy out there, how can I access it and then allow it. I'm so … it was that responsibility that I took, that is the foundation of speed sports. That comes from the circle that started ten years ago. All of this was based on years of applied focus of feeding the unconscious-conscious mind with information. Then the information was there in the bubble and could be used when needed. Another thing there was a real trust, a self-trust that I knew that I had the capability and it was in my unconscious mind and I knew that sometimes my conscious mind would get in the

way because it's a voice. "What about this? Why do you not do it this way? Why can't this happen and why can this happen?" Any of the cans or cannot happen will get into your way of the allowing.

Gustav: Could we go back to the perception of the environment? Could you tell me about this in high speed? How do you perceive the environment?

Speed skier: How do you perceive the environment? There is space that you notice on the way down. And it is interesting. The conscious mind perceives it … and then it is long gone (laughs). The second I start to realize: I catch an edge. That was like two seconds ago. And I always have a perception that is on two levels. One is the conscious, in which things are happening. I notice the wind, I notice this and that. … I might see that. I'm drifting to the right. I might pick a different line. I might hit a bump that I did not realize was there. The conscious mind has realized it, but it is already gone. The other perception is the sensory one. If I experience it right, I can see myself passing through the doorway into the zone. If I can feel myself passing through, then I just ride it, it is just like standing in the river and just being with the current. And that would be the second way to perceive.

Gustav: What do you see, hear, and feel? What is it?

Speed skier: You do not see, hear, and feel anything in particular. You simply have … a feeling if it was right. And when I say feeling like the textures, were the texture's right, not just under the skis but hands, wind, everything. What you see correctly, generally speaking. There is nothing in particular. When I start to see or feel anything in particular, it becomes a distraction.

Gustav: And what was the relationship between you as an athlete and the environment?

Speed skier: Oh, harmony. The relationship … the ultimate goal was harmony. When it went well, it was in total synchronization and in harmony with the environment. But that happened once every ten runs maybe. That didn't happen every time. I think in training, I have always tried to check in, but I would focus on one thing and the other, trying to see what the feeling was like, when something felt right in training, I would always have the feeling that this is exactly what it should feel like to ride an exact ski. In training, I often had poorer runs than the rest of the guys on the team. But on race days I always had better runs. I was always number one on the national team. And that would absolutely mystify everybody in the team. How can you train so poorly and then have such great runs. I was always focusing on one thing and then the other to try and find that one thing right and then anchor that feeling.

Gustav: Can we talk about limits? What would you say is the fastest you can go on skis? What is it dependent on?

Speed skier: Our limits are … I guess three directions. The limits are, if you have never gone that fast before when you go. Let's say the fastest I went was two hundred and five kilometers an hour and if I would go two hundred and twenty five kilometers per hour, I would be in an area I have never been before. So my limitation would be … a comfort zone. Where I may be within this comfort zone where I have never been before. … The other limitation would be on equipment. Some guys in teams have annual racing budgets of five hundred thousand dollars. I have no money from the federation. I have twenty to twenty five thousand

dollars just to race. I felt that I had techno-logical limitations. The third thing would be what happened in the past. … If I think of the Olympics, I thought that I would have to have a singular perfect run and the top guys would have to make mistakes to allow me to win. So I had that limitation on myself.

Gustav: How fast would you like to go? What would be your approach to get there?

Speed skier: I always measured my results not on the speed but how much faster I went than the other person. On a small track, the maximum speed would be one hundred and seventy kilometers per hour. I would want to go seventy-one, right, because everybody else would be lower. … It was interesting, though, when I started to go over two hundred kilometers an hour regularly and it went well. I started to remember how much fun it really was to go that fast and so the speed was actually irrespective, not related to that experience of power in the zone. If I had that, I would always want to go back to that, more than to speed.

Gustav: How far do you think the people in this sport can push the limit? I mean, you could use a larger track … What do you think the limits are?

Speed skier: I do not think that there are any limits. I know there are people who have jumped out of planes. They have gone one hundred and eighty miles an hour. I don't know, around three hundred kilome-ters an hour. I don't know how fast they will become, but there is a guy in the States that just went one hundred and fifty miles per hour. … He did that in a none-sanction race but in a sanction environment, if that makes sense. But there were not many competitors. Not many people could have influenced a higher world record. … There are no limits.

Gustav: What is it? Is it exploring?

Speed skier: Yes, eventually exploring. Somebody comes up with new technology. One day it will be warmer, a sunnier day …. Someone might have the wind behind him or her just at the right moment and they were in harmony with perfection for that day. A few years later, same track, and they break it by half a kilometer per hour. And they may have the new limit.

Gustav: I would like to go back to the speed zone and talk about time. Would you tell me what time is for you in the highest speed moment?

Speed skier: The faster you go, the more time slows down. Didn't Einstein theorize that time stands still at the speed of light? (Laughter) There is no time. There is no time. The brain is so complex. So many things can flash through your mind at one time, which is beyond comprehension. That really, truly is. … I was parachuting once, when the main parachute came out, I started to realize I had a mal-function. I had to get my reserve chute out. There was tremendous roar from the main chute, all tangled up in its ropes, very, very loud. When I pulled the cord, I let the main chute go. When I pulled this cord again, the reserve chute started to come out, but when the main chute went away and the reserve chute hadn't come out, there was maybe a second or two, but there was no sound. I was back into free fall, in that second I had - you heard the expression the life flashes before your eyes, I had that and I have never experienced that since or before. And it was like there were maybe eight or nine experiences throughout my childhood and my younger days where I saw and felt. I remember a day when I was six or seven years old and walking around on hard wood with socks on. I could feel that slip-pery feeling on hard wood, you know that

feeling you get in the end of your fingers … and I smelt what was in the kitchen and that happened like … (uh) … and there was another thought, riding a bicycle … (uh) … and another thought, another thought and another. It was like … pa, pa, pa, pa, pa, pa, like that. That was so complex, that was beyond comprehension. How did I have that, not only just a vision but also an experience where I smelt, saw … I had all five senses of what that was like. How does that work, so when you talk about time … Right now you and I have an experience of time … We feel the sunshine on my left and your right shoulder. We hear the music. We feel the carpet under our feet, you know, and that is happening under time, as we know it. If a meteor started to crash into that window time would change completely, because all the sudden we would hear that initial crack into the window and then we would feel ourselves almost like slow motion. Time has no meaning in speed sports ... In fact it is almost like exploring … when you explore a dimension of time you don't get the chance to visit that often. And you wander around in yourself and …

Gustav: Interesting, do you have an example of that?

Speed skier: Yes, that pig story. Where I was so consumed by that pig thing, how ridiculous that may have been. But there is another time when, I was going down the track and it was a light rain. I had never seen rain before on a track. I saw a little raindrop on my vision and it started to shake, violently and it started go faster and it went … like that. And I thought, wow. I was totally into this thing. When I tell this story and relive it, it is like it happened over a course of one to two minutes. That might happen in half a second that I saw it shake and I saw it clear what it did and I saw where it went … it had nothing to do with my actual concept

of time. But time is an interesting thing … that is a playground.

Gustav: What happens to time in speed sports?

Speed skier: Time slows down. If I had to define it, time simply slows down … and that the awesome power of the brain starts to come forward in speed sports and it starts to redefine time.

Gustav: You have a lot of experience and I feel you have a lot of knowledge. How would you explain that phenomena? What is your approach?

Speed skier: The only way I can explain it is that the … The neurons in the brain are connected in so many different ways, that they can slow down time because it can have a process of perceiving a situation that we do not often use, because we do not have to. There is a part of the brain … I think it is called "Amygdala". It goes back to that fight or flight reaction which is in the third base of the brain …

Gustav: The very old one…

Speed skier: Yes, the original part of the brain, the reptilian part of the brain. And sure, there is that part of the brain where you can actually visit again and then have this complex computer, bio computer that actually has an experience, because we experience things in time, as we know it that lasted for seconds. Another ten seconds just passed and we have experience through that. But when things happen fast, when speed happens, the brain processes differently then we are used to. And that is my way to look at this.

Gustav: In the last section of the interview I would like to talk about risk and security.

Can you tell me about your perception of security in such situations? What does this mean to you in your particular sport?

Speed skier: Risk is what turns me on to be larger than fear. And I believe fear and risk are inherently combined. I have always been the kind of person that will look at risk, realize how much risk there is, and try … when I say I identify risk and then I try to minimize the risk. I try to bring it into a package. Let's say the risk is the size of this room … That is a lot of risk, but there is a way to identify as much risk is possible and then bring it into a shape of a basketball. So you minimize, minimize, minimize and so you are actually able to handle as much of the risk as possible.

Gustav: Now you know… but how can you affect a scenario or set yourself in a pattern to deal with the risk?

Speed skier: So again there are two quick paths to the risk. I would see how much of the risk I can physically manage and for how much of the risk I can put a pattern together prior to leading into the risk that will allow me to go straight through the middle of it, bypass it or deal with it on the way. I believe it is very strategic to deal with risk this way. I believe … I once asked people what makes successful people successful. We asked this around the room. Some people said, they are happy, they are rich, they are tenacious, and they are committed. You know these are all right answers. There is no wrong answer to this question, but to me successful people apply consistent strategy … another three very important words: apply consistent strategy. Are you applying something over and over and over again till you become very good at it? And is it a strategy, something where you can minimize the risk? Have you taken all the important elements, and brought it right down to a manageable

area and then went forward? And then when you are going forward, like on the race day, the race run, the negotiation, anything … especially with speed. That is when you've got the foundation of having applied consistent strategy. And then you allow. This is ... When you had to qualify … this is a very defining moment where you pass through strategy to application (laughter). You go from planning to doing. I believe that the further you run away from risk the larger it gets. The closer you run to risk, the smaller it gets.

Gustav: How would you explain this in an example in speed skiing?

Speed skier: Right. I know the studies, which I could give you, where it came from. There are studies that say that 80% of what we worry about isn't worth worrying about. It will never come to pass. Fifteen percent of that balance is worth worrying about but you can't change it. There is nothing to do to change it. Five percent is something to worry about, but you are able to deal with it when you are in the middle of it anyway. You have no choice, because you have to live through it. So really, five percent of everything out there is worth worrying about because … within speed skiing, the risk was there but it was never the focus. Peak performance happens when stress is minimized, so risk is always linked with stress and with managing stress. When this unmanaged stress occurs, that's when you shouldn't be racing … I once had an injury and I had to go to a race in Italy. I was so worried about it. The doctor said: "If you fall again you kill yourself" (laughter). I thought: Great. And it was the worst result I have ever had in my life - ever. It is obvious, the risk was so great, that it became the focus.

Gustav: And how do you handle risk in such a situation?

Speed skier: How do you handle risk in speed sport? You have a strategy. You have a strong foundation of preparation. You apply a pattern prior to every run. When I say a pattern, I mean the four point preparation plan: Get there early. That was my previous pattern, every time it was the same. And so I was … imagining a bowling ball … and it had a trough ten meters down … and if I took that bowling ball and I just allowed it to roll down it would … always have the same speed, the same direction and follow the same momentum, every time. A pattern is like that. If you are standing at the start of that track, you are like a bowling ball. If you exit, you set the pattern up. Momentum can carry through. That's the way to minimize risk. And that pattern can be set up on race days also. You know, it is the idea to start with this pattern.

Gustav: Can we now talk about the mental preparation? What is your general mental strategy to approach an important race, one hour before, one day before, one week before?

Speed skier: Well, this was my actual strategy. And when I started racing it was … it was a four-part plan. I needed to minimize risk concerning money, because I needed money. Second were the physical things, all the race runs, training physical things and eating right. Third were the technical things, doing research, understand aerodynamics and all that. Fourth was the mental preparation. I had these four areas and I always made sure that every day, I would check mark off these things. I also had a philosophy of doing what the competition is not willing to do. I spent two hours a day … visualizing … and I took that as an average of just visualizing speed runs every day. That to me was that drop into the basket every day. Every day the drop went in, whether it was large or small, as long as it

went into your unconscious. I fed it always and I never evaluated or judged myself if it was enough today or if it was too little today as long as I did it that day, which was the consistent part of it. That was months and weeks leading up to a race and the race season. In the season, I would actually stop my visualization program and do it just in the morning and night, because I was just too busy throughout the day, waxing skis for the race run. Then at the day of the race, it was simply that point where I allowed and then went through a pattern and I always had the same pattern.

Gustav: Are there other things that I did not mention that you think are important concerning speed? Just things that you think we did not discuss so far?

Speed skier: Well I thought a lot about what speed is to me and it isn't something that I am drawn towards. I am drawn towards being more powerful as the speed. I am drawn towards the zone. I am drawn towards a satisfying experience. Speed was simply a means to the end and the end was satisfaction, knowing that I could accomplish that. That is one of my driving needs. So speed wasn't the attractive part.

Gustav: Satisfaction in the experience?

Speed skier: Yes and satisfaction in the experience too, because "flow" when you are in that zone, ah … that is a drug, that was a drug. And it is a good thing that it is not available (laughter). This is something that you should do more research on: the speed demon concept here, because there is a conception that people just … want to go fast, whatever. That is power and there is something spiritual they are looking for. And some of the guys at a racecourse can't wait to go fast and they become really mad. Deep inside, I was going to die, if I did not do this

and this or this and I started to have these feelings and anxiety. It wasn't until I had more and more experience and was more comfortable with speed that I started to say ok. I feel comfortable with this, I can't wait to go faster and faster. I still didn't say that to myself. I said to myself: "I want to win. I want to go faster than ever before. I want to be in the zone. I want to be in harmony with perfection".

Gustav: Thank you very much for the interview. Your examples and descriptions are clear and easy to understand and to relate to. I hope that some of your statements may help others to find their way towards the optimal experience and finally to the optimal performance.

Insights into Quality Practice: An Interview with Coaching Legend Bill Walsh

Bill **Walsh** & Kevin **Sverduk,** USA

Bill Walsh: Bill Walsh is among the greatest coaches in the history of the National Football League (NFL). During his 35-year coaching career he won 3 Super-Bowls as head coach of the San Francisco 49ers. He was given the nickname "Genius" for his innovative football strategies and mastery in preparing his teams to perform. He was elected into the Pro Football Hall of Fame and was selected by ESPN as the top American Football coach of the past 25 years.

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Abstract

Perhaps no other factor influences performance more than the quantity and quality of the athlete or performer's practice regimen. Possibly no other coach understood and integrated this as completely and consistently as Bill Walsh. Bill Walsh's reputation for meticulous planning and preparation of his teams has been well chronicled. This interview was conducted as part of a research project examining expert coaches' attitudes and beliefs about quality practice.

Interview with Bill Walsh

Kevin: What do you see as the role of practice?

Bill: There's four or five criteria for practice. The most basic is physical conditioning, and that is often over-emphasized. The next would be to go through the repetition of developing the skills. Those skills can be very extensive or rather limited. So, conditioning and then skills, then in team play the coordination between the athletes in team drills. The next would be related to planning for the opposition and rehearsing, in a sense, what you'll be doing for the game itself. The fourth would be to develop the skills of those players who may not be ready or prepared for playing games themselves. So you have that obligation. The next would be preparing for contingencies that can develop, situational circumstances that can develop in the game that are common to every game. Those are part of our practice regimen. That would probably be the limit of it.

Kevin: What would be some behaviors in practice that would catch your eye in a positive way?

Bill: Well, I think concentration and focus is absolutely critical and that's what we demand, require, and expect - focus and concentration on the activity being carried out, and in the explanation and the basis for the activity. The second would be communication between players themselves, and players and coaches. That has to be ongoing. We expect and require that. And then energy and

enthusiasm for what they are doing is the next critical factor, and from there it's being supportive of teammates, working together to mutually improve in skills and techniques.

Kevin: In talking about concentration and focus, how do athletes know what to focus on, the ones that are having a great practice, how do they know what to focus on?

Bill: Well, I think that's strictly a coach's role. The coach has to engender a feeling of importance of the activity. So, the coach's role is to establish an environment in which the player will feel naturally inclined to focus and give attention to what they're doing related to the upcoming game or upcoming season. The energy and support of other players should mutually develop an atmosphere on the field that is conducive to learning and preparing and concentrating.

Kevin: Were there athletes you worked with that got more out of practice than other athletes?

Bill: You'd like to think not, but I suppose there were. A lot depends on the position they play. Some thrive more so than others on the practice regimen. It was the coach's job to motivate and pull along those who were not as enthusiastic, but once you establish an attitude among the players, very rarely does someone let down because the other players just will not accept that. A good example was the 49ers. If the offensive unit is running its scout team play for our defense, if they don't come out of the huddle quickly and get into position quickly and execute, well Ken Norton, the middle linebacker, will just chastise them and raise hell with them, tell them to go back in the huddle and come out right; he'll start coaching the other team to get the look that he wants. So,

when that atmosphere develops, that's when practices are most valuable and important.

Kevin: Is there an element of expectations?

Bill: Yes, I think those teams or schools or organizations that have developed an attitude and a state of mind expect a lot of each other. High expectations. They require of each other that they practice honestly and with complete focus, so, once that is established, the coach's role is just to monitor it, because you don't need very much prodding.

Kevin Are there any mental cues needed? When you have an athlete that you want to pick it up in practice, you want to get a little more out of him at practice, is just enthusiasm and concentration enough, or are there some other things?

Bill: Just do what is expected, whatever the activity is. But, they've got to be reasonable. If they're not reasonable, then the athlete will question, whether they do it overtly or not, who knows, but they'll question it if it is not reasonable, if it doesn't make sense. That's the shortcoming of some coaches. If it's reasonable, and especially if the athletes can see the practice being directly related and connected to the upcoming game of contact, then the athlete is far more interested in preparing themselves. If it is just activity for the sake of activity, then I think athletes do lose their focus. Often a coach can't quite understand why the athletes are losing their focus, that's why it is so important that practice be relevant to the game.

Kevin: What would clue you in to the state of an athlete in practice? How would you know if they are not focusing or concentrating?

Bill: Well, if he makes mistakes and repeats the mistakes; the directions are given to the players and they don't respond as directed or as coached. When that happens you know they are not thinking about what they're doing, when they tend to lose their poise and their efficiency in football by jumping off sides and not asking questions. If an athlete is not asking questions and participating in the practice, then you wonder if they're really with you and concentrating.

Kevin: So, there's a mutual responsibility?

Bill: Sooner or later there should be. It may not be in the initial stages of developing a team, but at some point, when the team is mature, or when the program is mature, you expect questions to be asked. Now, not silly questions to slow practice down to get a rest which you see at college level, but it's honest questions, a player might differ with a coach on something. So there's an interaction between a player and a coach, and players and players. There are some people who will let down - maybe 10%-20% of your athletes will let down - at practice; they get fatigued and they lose concentration and they take a short cut to what they're doing and that's the coach's job to identify who those people typically are and to be right there and just expect and demand that they participate and give the same energy level as everyone else.

Kevin: Why do some go harder, like Ken Norton?

Bill: I just think it's in their genes, in a sense, or their history or background or experience, or conceivably the importance of a game to that particular person and the role they play on the team. If a player like Ken Norton has to make different calls to adjust the defense and the offense doesn't align itself properly or quickly, well then he's up-

set because he can't get his job done. So it depends on the role that each player is involved in. But there are players who will inherently let down and you wish they wouldn't and you just drive them harder, but not so much through criticism and ridicule - a lot of it is supportive. Keep pushing and driving and reminding them. There will be 10% of the athletes that will be in that category. If you had a high school coach, I'm sure it would be much more evident because of the immaturity of the athletes than at college or professional levels. Now, some coaches don't define what is expected in practice or they emphasize just one phase of practice too much, so on occasion there are coaches who will take more out of the athlete in the conditioning process so that you simply can't think clearly in the execution process. That is very common, especially with inexperienced coaches.

Kevin: So are you saying that a quality practiced is balanced?

Bill: Certainly, and as I mentioned, I think the conditioning aspect is far too much a factor, especially for the inexperienced coach because they're not sure what they should do next or don't know what they should do next. So they have the athletes go through some rudimentary running and think he is preparing the athlete, when really most often that is counter productive. So a knowledgeable and well informed coach is going to have something very specific every minute of the practice that they are attempting to define or accomplish, so they never have enough time to get all these things done. That's where training and experience comes into it.

Kevin: Are there some self-directed attitudes and behaviors of the athletes that are important?

Bill: Oh sure, Well, there are some who will work harder - there are some key players who will want to do more - following practice or before practice. Different roles may require that or they just have that intense determination to improve and prepare themselves. And it's up to the coach to monitor that because that can become excessive and counter productive. But I think it's important to the coach that he just continue to spur everybody on to improve their own individual skills all the time and ensure that people are actually improving and accomplishing things in practice, rather that just going through the drudgery of a practice that so often occurs, especially at the high school level, but even at the college level, and sometimes the professional level.

Kevin: To go on with that….Is it something more than the athletes just doing what the coaches ask him to do?

Bill: Oh, certainly. You'd hope that the athletes, by the way they are communicating with each other during practice, are taking it beyond what the coaches would find acceptable. The more communication, the more interaction between the athletes motivating each other - but more so communicating as to how they are going to do certain techniques and execution - the more of that the better. And some people are nonverbal and you have to sort of find a way to help them learn to communicate better. You'll find there will be key people on a team that will be communicating the teachings of the coach and those are the people who basically set the standard for everyone else.

Kevin: What would be some of the "hows" you would tell the athlete?

Bill: I think, in a general sense, athletes should take the field feeling that they are going to improve some very distinct, spe-

cific techniques or skills that day, and will continue to on an ongoing basis. The other "how" is to ask questions of their teammates. When necessary, ask the coach to explain possibly further, but then to enthusiastically focus and concentrate on what they are doing and to demonstrate in energy that circulates through the entire team.

Kevin: When you talk about enthusiasm, concentration, focus, and energy, how would you compare that level in a quality practice situation with a game situation?

Bill: In football, you take out the final element of that hard physical contact, but you want the same explosion of movement and execution, identical to that of a game. You don't expect it to change for the game - you can't. The players won't suddenly execute better in a game. It just doesn't happen; they don't execute as well because of all of the variables, so you want everything you do to be game-like, and as designed or required by the coaches. On occasion, at certain periods prior to the season you will have, in football, all-out game-like conditions. But during the season you can't do that and you don't want to do that. You do demand and require that the players move at the same explosive tempo and that they think and they execute all their skills - you're using game-like conditions for each day you practice, so that you're addressing a different phase of the game or different strategies, and that should be done just as intensely as you would during a game itself.

Kevin: When you think about your best performers, and not talking too much about just talent-wise, what is different about them in practice? Was there something in practice that they did that significantly contributed to their level of performance?

Bill: Well, there are some players who practice at their own pace if they can - it may not be the same pace as the rest of the team - and still perform admirably. But by and large the folks that turn out to be outstanding players have a great practice effort and concentrate on improvement. But on occasion you'll find someone who doesn't practice well, but when the game starts, he plays much better. You have to find a way to account for that. Often that happens in football, with the men who handle the ball - the running backs. Whatever the coach feels is the requirement of the practice, he should follow up on that continually and not compromise it. When he compromises it, or lets his hands off the control, practice can be ineffective, even chaotic.

Kevin: What motivates athletes to practice hard?

Bill: The seriousness of the game itself. Athletes learn to understand that through practice they can perform, and if they don't practice well they don't develop the fundamental techniques and skills they need. And when they're playing a comparable opponent, they'll falter, they'll make mistakes or lose their momentum or concentration. So those that practice better are more confident during the contest itself. They feel that they have prepared themselves. If there's a doubt in your mind as to your condition or your techniques or your game - in a sense if you know you haven't really prepared yourself like you could - well then typically you'll come unraveled if the competition is comparable. Now, what tends to happen if you're playing against an inferior opponent, then you can get away with a lot. If your opponent is very competitive, that's when you are truly tested. So last night, LaSalle won 56-0; well, I don't even want to read about it. It's ridiculous that they're playing that team. I

don't care how good they are, they have to find people that are competitive.

Kevin: So, with motivation, is there any intrinsic motivation to practice hard? Is it just that….okay if I practice hard and I have a chance of winning then that's the reason I'm going to practice hard?

Bill: Oh, no, I think people develop, hopefully thrive on the activity itself; thrive on running a pass pattern, doing it better than anyone else or as well as they possibly can do it. Oh, yea, I think there is an intrinsic value to practice. Those that thrive on the sport that really, in a sense, care for the sport, are really involved with it and even find joy in practicing and being on the field. Oh, yes, that's what you'd like to think - that every athlete has a form of that or by degree they have in their system. By degree they do, some more than others.

Kevin: How would you say that is learned? How would an athlete get to that point?

Bill: Its different experiences and a level of confidence. If an athlete does not have a lot of confidence, is fearful, and isn't sure of himself, well, then they're not going to thrive on much of anything. They're going to be out there trying to overcome that fear as much as learning to improve their game. So, there are those who have the fear of failure and just won't let go and give it everything they have. You just hope they grow out of that. Some people never really do.

Kevin: How would you define competition?

Bill: Competition is related to the nature of the sport and the rules of the sport - a basic drive. We have refined it to the point that we can utilize it and play in sport instead of work for something else. There's an energy and a drive that is inherent in people. Fortu-

nately there is sport that can relieve that and give people fulfillment. Hopefully, it's not so much that it dominates, hurts or ridicules the opposition.

Kevin: Is it important to success?

Bill: Hopefully you respect the opposition, what they're doing, and you respect them as competitors.

Kevin: Does it exist in quality practice?

Bill: Well, you hope so. There's always the isolated person who is not capable really of respecting very much. They're self-oriented and you always have to work to temper that. Hopefully you don't have too many people like that.

Kevin: Would you say there is a range or perceptions of competitiveness? What people perceive as being competitive?

Bill: Well, each person is a little different. There are those who compete almost at a rage. There are those who compete nonverbally and quietly and go about their business - mechanical. All forms, by degree, the persona of the athlete. There are some positions in football where you'd like a little rage. That can be, in a sense, motivating to the team. But, if the entire team was full of rage, then typically emotions sort of block out execution.

Kevin: Is there a competitive nature to practice?

Bill: Well, often practices become very competitive, especially early in the year where there is some time between the practices and the game. In football, it could be four weeks. Then it becomes competitive because the nature of the game on the field. But that's a factor in every sport. People

want to compete, so at some point they compete against their own teammates in practice, and that has to be tempered and controlled, and that's the job of the coach. Temper that, yet get the intensity that they need. That is an ongoing problem every year with every team sport, just before they play the first game. People are compelled, in a sense, to compete. That's what they've been practicing for and waiting for, so that can turn on their teammates, and if it's good positive sportsmanlike conduct and demeanor, then it's great. But that always has to be controlled by the coach.

Kevin: Do some athletes perform better in practice than in games?

Bill: Well, there are those that just aren't able to perform as they practice. There are always kids like that. It can just be a void in their make-up that can't ever really be eliminated. They operate very mechanically during the game or just fail to respond quickly enough. There are others who really lack self-confidence. So, when you get up against the unknown, which is the opposition, they lose their focus and concentration, and it turns to fear. So, those are always factors; people will let you down. Mistakes in performing in the game may not show as very important at practice because in practice everything is controlled. So a Joe Montana scrambling out of the pocket and hitting a receiver doesn't happen that much in practice, but in games he does it, and has to. A person like that is at his best naturally in a competition. And there are those who will practice well within the confines of a scheduled practice and drill that don't have that other dimension to their performance. They rarely make the key play and don't perform up to their potential. They just don't have that connection and it often doesn't show up in practice.

Kevin: Do quality practices bring out the intuitiveness in athletes?

Bill: Well, there could be drills and things of that nature where the coach is studying the athlete very carefully and seeing if they have that. I don't ever understand that because the player practices at one standard and the coach assumes that's how they'll play. If they have that level of performance and you don't see it in practice, well, you just have to see them in the game situation as to how they actually will perform.

Kevin: What would be your assessment of a player who doesn't perform as well in practice as games?

Bill: Well, it has to be pointed out to him. You have to give him maybe a little more latitude about how they do things so they can feel a little freer to perform.

Kevin: If you were to construct the make-up and physical behavior of an ideal athlete, in regards to quality practice, what would it be?

Bill: Well, as I say, a real thirst to learn more about the game and the pride they take in developing their own skills and measuring their skills and techniques. It takes a positive attitude to be committed to do the best they possibly can in every drill and repetition. They have a willingness to listen and clearly understand the coaches directives, and as I say, to learn to communicate with teammates continually and effectively.

Kevin: To summarize some of the components of quality practice in regards to the individual; motivated extrinsically and intrinsically to get better, positive attitude towards practice, full physical intensity in every drill, game-like situations, effective listening skills, communicate effectively with teammates and coaches, overall pride in what they do, a high degree of concentration and focus on the details and purpose of what needs to be done. Would you add anything to that?

Bill: Well, I think that there's a plan for the opposition, to establish that plan, to take it as far as you can, as part of the response system that you have when you play so that you know your plan frontwards and backwards.

Kevin: How do you know if your plan is correct?

Bill: You do everything you can. You want to prepare for the next game. You look to understand what your opponent's strengths and weaknesses are and their tendencies and how they individually play specific circumstances. Learning what you must do against your opponent.

Kevin: Let's take a position on your team, like a place kicker, who is not actually involved with a lot of contact, is his preparation and quality practice any different?

Bill: Well, it could be he has his own practice regimen that is designed and developed by him and his coach and that can cover all the possibilities, but the continued repetition of a simulated game situation in kicking the ball. There are fewer requirements as to what the kicker is expected to do, but whatever he has to do has to be right and consistent, so he has to practice to develop a consistency. The only way you do that is continued repetition.

Kevin: Would you say you could generalize a little bit with other sports in regards to what quality practice is?

Bill: I think football can identify a lot of this with all sports, even individual sports. You have to practice, you have to have your game plan related to all situations, practice and repeat it thousands of times until it becomes instinctive. You just don't want to have to think during the game itself. If you have to stop and do a lot of thinking, you're always going to be a step behind.

Kevin: Thank You

Life After Sport:
Athletic Career Transition and Transferable Skills

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Abstract
Athletes transitioning out of sport are faced with many obstacles. Well-trained counselors have the appropriate skills to assist athletes through athletic career transition. An examination of the literature focused on career retirement and transferable skills lead to the development of intervention recommendations for athletes transitioning out of sport. Treatment recommendations include psycho-educational and cognitive behavioural interventions that focus on the emotions associated with transitioning from sport as well as an emphasis on transferable skills.

Life After Sport: Athletic Career Transition and Transferable Skills

Career retirement of athletes is an important watershed change that is often overlooked. Athletic retirement or transition is inevitable for all athletes (Zaichkowsky, Kane, Blann, & Hawkins, 1993). Baillie and Danish (1992) stated that athletic retirement has been disregarded because this transitional event is equated with the occupational retirement of older adults, and there is a misconception that only a small number of individuals who compete in elite and professional sport are likely to be affected by this transition.

Athletic career retirement is very different from occupational retirement. The first major difference is that athletes typically start

and finish their athletic careers at a relatively young age (Baillie, 1993; Blinde & Greendorfer, 1985). At approximately the same time that athletes are ending high-level competitive sport, their peers are often beginning careers in other non-sporting domains, getting married, and having children. These comparative situations may add to the already stressful feelings inherent in athletic retirement.

A second major difference is that many individuals who undergo career retirement do not experience the same disruption to their identity as do athletes (Pearson & Petitpas, 1990). Because athletes spend much of their time dedicated to their sport at an early age, this creates a situation in which time has not been allocated to acquiring interests in other areas. This may result in a disruption to normal developmental events such as identity development, and young athletes may form a foreclosed identity (Brewer, Van Raalte, & Linder, 1993; Pearson & Petitpas, 1990). As suggested by Heyman and Andersen (1998), young athletes obtain a foreclosed identity when they identify exclusively with the role of athlete.

Consequently, when athletes retire from sport, they may feel loss and become disillusioned (Pearson & Petitpas, 1990). Athletes often fail to give credit to the lessons and skills acquired through their sporting career. This may result from a tunnelled vision and foreclosed identity in which athletes are incapable of seeing how the same skills that made them successful in sport will make them successful in other career pathways (Petitpas, Danish, McKelvain, & Murphy, 1992). Retirement from sport needs to be considered within the context of other variables and factors that are apparent in life (Coakley, 1983).

Transferable skills are general skills that are context and content free (Wiant, 1977). In athletics, transferable skills are those acquired through sport that can be applied to other areas of an athlete's life and to other non-sport careers (Mayocchi & Hanrahan, 2000). An example of a transferable skill is tenacity. Hockey players learn tenacity and demonstrate hard work on and off the ice, which they can use in a new career in business when they retire from sport to learn domain-specific skills such as successful negotiating and proper ways to manage employees. Danish, Petitpas, and Hale (1993) provided an example of life skills or transferable skills that can be applied across settings, including organizational skills, adaptability/flexibility, dedication and perseverance, patience, self-motivation, and the abilities associated with performing under pressure, meeting challenges/deadlines, and setting and attaining goals (Danish et al., 1993).

Therefore, athletic transferable skills can be defined as abstract skills learned in the sporting environment that are applicable to other facets of life or to another career (Mayocchi & Hanrahan, 2000). Intuitively, athletes view learning transferable skills as critical to adjusting to retirement from sport. Sinclair and Orlick (1993) reported that athletes are interested in learning how to transfer their mental skills to another career. Swain (1991) stated that athletes become concerned with the transferability of their skills and knowledge when they think about retirement from sport. Research has shown that athletes respond positively to learning about how specific skills from sport transfer to other non-sport areas of their lives (Petitpas et al., 1992). This type of research is important because it outlines the importance of transferable skills for transitioning athletes.

Athletic Career Transitions

In a review of the literature on athletes' career retirement, Crook and Robertson (1991) concluded that the adjustment varies depending on the individual. In considering the spectrum of career retirement experiences discussed in the literature, it is important to understand the level of involvement of the athletes and the time frame being studied in relation to the retirement, as they can have very different results (Crook & Robertson, 1991). When researchers studied the retirement of professional and elite-level amateur athletes immediately after retirement, their results suggested that retirement from sport is traumatic and requires an adjustment process (Botterill, 1981; Broom, 1981; Haerle, 1975; Hill & Lowe, 1974; Lerch, 1982; McLaughlin, 1981; McPherson, 1980; Mihovilovic, 1968; Orlick, 1980; Rosenberg, 1979, 1981, 1982; Svoboda & Vanek, 1981; Werthner & Orlick, 1986). In contrast, researchers who examined high school and college athlete retirement retrospectively supported the view that retirement from sport does not create trauma or require adjustment (Blinde & Greendorfer, 1985; Greendorfer & Blinde, 1985; Kleiber, Greendorfer, Blinde, & Samdahl, 1987; Otto & Alwin, 1977; Phillips & Schaffer, 1971; Sands, 1978; Snyder & Barber, 1979). This may be due to the fact that these athletes have simultaneously pursued other interests and academic training. Thus the level of the athletes involved and the time frame of the study are important considerations (Crook & Robertson, 1991).

The literature does not clearly define or directly measure factors related to athletic career transition, but it is still possible to outline several factors that are related to successful career transition (Crook & Robertson, 1991). Crook and Robertson outlined the following five factors as affecting career transition:

a) anticipatory socialization,
b) identity and self-esteem,
c) personal management skills,
d) social support systems, and
e) voluntary versus involuntary retirement.

Each of these factors will next be summarized.

Anticipatory socialization.

Anticipatory socialization is the proactive response of preparing for retirement before it happens (Crook & Robertson, 1991). The lack of attention to preparing for life after sports can negatively affect athletes' ability to adjust (Blinde & Greendorfer, 1985; Crook & Robertson, 1991). Kerr and Dacyshyn (2000) stated that most of the athletes in their study experienced a stage of existential questioning after retirement because they had not taken the time to prepare for retirement and that, without sport, these athletes were left asking, "What is next?" Some athletes do not think about retirement during active involvement in competitive sport because they consider it defeating and admitting to failure (McLaughlin, 1981), whereas athletes who pre-plan for retirement find the transition out of sport less disruptive. They have a new passion and challenge into which they can channel their energy (Werthner & Orlick, 1986). Allison and Meyer (1988) reported that many of the female tennis professionals that they interviewed considered retirement an opportunity to regain more traditional societal roles and lifestyles. A positive factor in adjustment is having other interests and participating in other activities after retirement. This provides support for the importance of encouraging athletes to maintain balance in their life by pursuing other interests and activities while engaging in competitive sports (Sinclair & Orlick, 1993).

Identity and self-esteem.
Problems in retirement are often associated with a loss of identity and diminished self-esteem (Botterill, 1981). Many athletes end up dependent on sport for identity and gauge their self-worth by their ability as an athlete (Botterill, 1981). When athletes' self-esteem and identity are tied to sport, they often experience negative transition and are confused about their identities (Crook & Robertson, 1991). Many athletes do not feel that they have accomplished everything that they had set out to achieve in the sport if they are plagued by injury or are cut from teams and forced to end their careers. Such events often results in a difficult transitions (Werthner & Orlick, 1986). Many of the female gymnasts whom Kerr and Dacyshyn (2000) interviewed were faced with a loss of identity when they retired. Athletes who no longer feel that they can compete at the same skill level and intensity may perceive it as a breakdown in their ability, which may greatly impact their self-perceptions (Sinclair & Orlick, 1993).

The degree to which athletes consider alternative role possibilities is a strong indicator of successful transition out of sport (Blinde & Greendorfer, 1985). The athletic status of interscholastic athletes is often less prominent in the social environment, and their transition out of competitive sport requires less adjustment. Furthermore, their memories of their sporting experience will be less likely to hinder their future growth and development (Coakley, 1983). A sense of accomplishment at having reached the goals that they set out for themselves in the sporting area allows for an easier transition as the athlete feels that their athletic experience was positive, and that they are ready to tackle new challenges (Sinclair & Orlick, 1993; Werthner & Orlick, 1986).

Personal management skills.
Having good personal management skills is crucial for successful career transition. Athletes may not be prepared for the transition into athletic retirement because they are dependent on others for such factors as personal management (Botterill, 1981). They often have little choice in their training and the competitions in which they participate and thus depend on their coaches for decision making. Athletes might therefore lack the skills in self-management that they need to make alternate career decisions (Crook & Robertson, 1991).

The coaching staff can both teach athletes personal management skills as well as support them. Werthner and Orlick (1986) reported that coaching has an effect on the transition of athletes. A positive relationship with the coach has a positive effect on transition, allowing the athlete to reach their goals and enjoy their sporting experience. However, a negative relationship with the coach may force athletes to leave the sport sooner than intended, which can lead to a difficult transition. Many athletes feel that the sport associations are responsible for their coaching problems (Werthner & Orlick, 1986). Specifically, they reported feelings of being used (and abused) by the system in terms of funding or being cut off because of their age, and they felt forced into retirement because of the politics surrounding the sport organizations (Werthner & Orlick, 1986). Although the system looks after athletes while they compete, they often offer little support to the athletes during the retirement process. Support systems, if available, often just help with employment and fail to recognize the need for emotional support (Crook & Robertson, 1991).

Social support systems.

The support of family and friends can ease the degree of disruption in the transition out of sport as emotional support helps the athletes to adjust to the transition (Werthner & Orlick, 1986). Athletes who experience a negative transition often cite the loss of a support system when most of their friends actively continue with sport (Mihovilovic, 1968). They believe that support from former athletes, family, and sport helps them to adjust to athletic retirement (Botterill, 1981). In addition to a lack of access to old support systems, they may not have the ability to create a new support system, which can create feelings of isolation (McLaughlin, 1981). However, Haerle (1975) stated that while former major league baseball players missed the contact with their teammates, this did not hinder their search for jobs and adjustment to life after sport.

Voluntary versus involuntary retirement

The literature suggests that problems arise when career transition is involuntary. Mihovilovic (1968) contends that athletes may have no control over their retirement because of injury, being cut, conflict with management, or family reasons. Injuries and health problems often play a negative role in the career transition of athletes. Those who face injury are often unable to control when and how the retirement process transpires (Werthner & Orlick, 1986), and career-ending injuries often do not allow athletes to accomplish their goals and plans for life outside of sport. Athletes who are involved in involuntary retirement are often more resistant and less prepared than are those who retire voluntarily (McPherson, 1980). When athletes have alternative skills, they may be more likely to voluntarily leave sport and are less likely to experience adjustment problems (Blinde & Greendorfer, 1985).

If a decision to retire is prompted by problems with a coach, retirement might be the only solution to a situation that is no longer tolerable (Kerr & Dacyshyn, 2000). Politics and the sport association often have an effect on athletes' transition (Werthner & Orlick, 1986). Finances are crucial in the transition because funding cuts by sport organizations may lead to retirement if the athlete no longer receives the funds necessary to continue training (Werthner & Orlick, 1986).

Coakley (1983) stated that voluntary retirement can lead to a positive transition and that leaving interscholastic and amateur sport is regarded as part of normal development. However, Kerr and Dacyshyn (2000) warned that the distinction between what constitutes "voluntary" and "involuntary" is sometimes blurred if athletes decide to retire when they are faced with impossible situations. Retirement is actually voluntary only when an athlete has another choice of action.

As can be seen by the number of factors that affect athletic retirement, it may be perceived as either a positive or negative experience. A key variable to make this transition positive is to focus on transferable skills.

Transferable Skills and Successful Career Transition

Athletes that have a successful transition are able to capitalize on transferable skills (Blinde & Greendorfer, 1985). When athletes experience a negative transition from sport, they may be unable to see how the skills learned in sport will transfer to another career. It is inevitable that athletes will face career transition, but taking a more proactive approach to career transition such as focusing on the importance of transferable skills may make the transition more successful (Danish et al., 1993). Athletes, regardless of

competition level, will have learned very valuable lessons through sport that will be valuable in other settings. When athletes realize they already have the skills and characteristics to make them successful in non-athletic areas, they become empowered (Petitpas & Schwartz, 1989; Petitpas et al., 1992). For example, athletes often have to deal with opposition while they strive for success in sport, and this ability to overcome opposition, or "weather the storm", can be an important transferable skill. When athletes lack the support to transfer their skills or overcome obstacles, the counseling profession may provide much needed support.

Awareness of transferable skills

One of the main barriers to using transferable skills may be that athletes are simply not aware of them (Danish et al., 1993). Increasing athletes' awareness of their ability to transfer skills from sport to other areas of their life may be enough to affect adjustment to career transition (Mayocchi & Hanrahan, 2000). When athletes are successful in sport, their focus may become so narrow that they do not see how their skills may also be effective in a non-sporting environment. Teaching athletes about skill transfer increases their confidence in their own ability to start a new career and may improve their ability to use their skills in different settings (Petitpas et al., 1992). Athletes may find that increasing awareness of their skills may help improve their athletic career by increasing their understanding of the role certain skills play in athletic performance (Mayocchi & Hanrahan, 2000). Athletes who have an increased understanding of the skills they have acquired through sport will be better able to explain these skills to future employers and outline how these skills will be useful in a non-athletic career (Mayocchi & Hanrahan).

Implications for Counselors

There has been very little research done to date that addresses effective treatment for athletes transitioning out of sport. Currently, there are significant organizational obstacles to the proper treatment of career transition difficulties for athletes (Taylor & Ogilvie, 1998). Many athletes have limited contact with qualified sport psychologists, which is problematic for athletes trying to access professional help when transitioning out of sport (Taylor & Ogilvie). Alternatively, athletes may not perceive counseling as an important component of their career transition. For instance, Sinclair and Orlick's (1993) research outlined that former world-class amateur athletes indicated that they did not view individualized counseling to be a helpful coping strategy when transitioning out of sport. Improving athletes' access to competent counselors and building a strong therapeutic relationship are the essential first steps.

General Goals

The general goals for treatment, in relation to athletes transitioning out of sport, are to create a more successful positive transition and to increase awareness of transferable skills in order to make effective life changes. Two primary factors may aid in this endeavour: a) emotional well-being and b) use of transferable skills. Counseling professionals can play a key role in helping to create successful transitions for athletes. Counselors and counseling interventions can assist athletes as they cope with the emotional impact of transitioning (Danish, Petitpas & Hale, 1992).

It is important for athletes to acquire knowledge about their transferable skills, but they must also believe they are competent. Individuals often fear situations if they do not believe that their coping skills are adequate (Bandura, 1977). However, if individuals

believe that their coping skills are adequate, they will address the situation with greater confidence (Bandura). In the case of athletes, when they exhibit high self-efficacy, transition is more likely to be successful (Mayocchi & Hanrahan, 1997). Counselors may assist athletes in exploring their perceived competency through cognitive behavioural interventions.

Increasing Transfer For Athletes
Athletes retiring from sport need to be aware of how their skills may be transferred to other settings. In order for athletes to transfer skills, they must understand how their skills and qualities may be valuable in areas other than sport. Danish et al. (1992) outline the following six factors as being important for effective skill transfer:

1. understanding how one's skills may be valuable in other areas
2. believing that one's skills are valuable
3. understanding how one's skills may be useful in contexts other than sport
4. understanding how feelings of anxiety may accompany transition, and overcoming this anxiety
5. developing a new identity
6. developing appropriate social supports.

Athletes have many opportunities to practice applying their skills outside of the sporting environment. Therefore, it is important for other individuals in athletes' lives (e.g., parents, coaches, teammates, peers, and counselors) to encourage them to use their skills in other settings (Danish et al., 1992).

Self-efficacy
Research has shown that an individual's self-efficacy affects one's ability to transfer skills (Mayocchi & Hanrahan, 1997). Many individuals fear circumstances where they believe that the situation will exceed their coping skills. However, individuals are more

likely to become involved in an activity if they believe they have the necessary skills to positively manage the demands of the situation (Bandura, 1977). Athletes may be more willing to transfer skills into other settings if they have a high self-efficacy. Conversely, they may not attempt to transfer their skills if they are not certain of their abilities (Mayocchi & Hanrahan, 2000). Counselors need to be aware of this to ensure they begin work with athletes from a perceptual position of strength by emphasizing athletes' strengths, self efficacy, and ability to transition successfully.

In-depth Treatment Plan
Research has suggested that the competition level, and/or age of the athletes transitioning can influence the type of intervention that is most appropriate. Career research has often concluded that students go to their parents first for career related issues. This suggests that career counseling should focus upon providing parents with the necessary skills to help their children through career counseling issues (Authors, 2004; Authors, in-press; Authors, 2005). Student athletes may also be better supported through career transition by their parents. The counselor might, in fact, actually help young athletes by increasing parental awareness of transferable skills. The following in-depth treatment plan focuses on elite or national team athletes in which case targeting their parents may not be as effective. For these athletes, a more individualized counseling treatment plan will be discussed.

Step 1: Engagement in Counseling
The main goal of this intervention is to create a strong therapeutic alliance. Through the development of a strong therapeutic relationship, athletes can explore the connection between their core beliefs and their various identities, and thus realize that the core meaning they derived from athletics

can also exist in their future endeavours. By connecting the stability of their core beliefs to their changing identity when transitioning out of sport, athletes are empowered to make life changes while maintaining their core beliefs.

This intervention is based on examining the relationship between general skills learned in sport and general skills appropriate for changing careers. The core of this transition must ensure that athletes derive personal meaning from their non-sporting career as they did from their sporting career. The counselor's role is to encourage the athlete to move from sport-skill thinking toward career-skill thinking through the use of tangible symbols in the athlete's own "equipment bag". In doing so, the athlete develops a connection between the relative unfamiliarity of his or her future, and the familiarity of his or her athletic equipment. These steps form the acronym ACE, which stands for *A*thletic identity, *C*ore meaning, and *Em*ployable identity. The creativity of the counselor makes the process more effective, as creativity is useful in helping athletes generate a variety of ways to deal with a situation (Delaney & Eisenberg, 1978).

Athletic identity
An athlete's identity is most often observed in terms of the equipment associated with the sport (e.g., footwear, safety equipment, uniform). Before initiating this intervention, the athlete will have been asked to bring an athletic equipment bag filled with a selection of his or her athletic equipment to the counseling session. The counselor then invites the athlete to speak about the importance of each of the items. The counselor's initial interest in the athlete and his or her equipment not only helps build a therapeutic alliance, but also engages the athlete in discussion about something both tangible and meaningful to the athlete.

Core meaning.
The counselor helps the athlete to examine overall themes from the discussion about important equipment to develop metaphors about identity and transferable skills. For example, the use of specific footwear in one's sport may be linked to stability, while the use of a specific uniform may be linked to identity. Other themes might include dedication, problem solving, tenacity, or teamwork. The combination of these themes forms the athletes' core meaning, and may be used to develop important metaphors for transition.

Employable identity.
Once general sport skills have been identified, and core meaning determined, the counselor introduces the concept of general career skills to the athlete. To help make the connection between the athlete's general athletic skills, and general career skills, the counselor encourages the athlete to reassign career related meanings to his or her athletic equipment. The items in the bag take on a new identity in terms of the athlete's career aspirations, and the bag containing the items metaphorically represents the individual in that he or she contains the set of transferable, general skills. The tangibles then serve as an anchor for the athlete throughout therapy, and a reminder that core meanings exist inside them, and can appear as various skills depending on their context throughout life.

Expected results.
While the distal goal of counseling retiring athletes is to ensure successful transition to other activities, the proximal goal of this intervention is to inspire the athlete's interest and creativity on which to base the remaining sessions. Increasing the athletes' awareness of sports general skills (core meaning) that are useable across various life situations is very important. During counseling, athletes will gain confidence and competence in

both solving future dilemmas in their life as well as using their sports general skills across many domains.

Step 2: Emotionality

Athletes that enter into career transition need to explore the emotions associated with making a major life change. Athletes are often taught to move past their emotions in order to be successful in sport. However, when making a transition out of sport, it is important for athletes to learn to be aware of and acknowledge their emotions. The level of anxiety that is likely to accompany the transition can affect the success of the transition. This fear can lead to a lack of confidence which creates difficulty when transferring skills (Danish et al., 1992). Athletes may have an identity that is so closely tied to sport that they lack interest in exploring non-sporting options, or they lack the confidence to use the skills to be successful in other settings (Danish et al., 1992). Therefore, exposure-based therapy that focuses on increasing awareness and tolerance of emotions associated with career transition would be beneficial.

Exposure-based therapy can be useful to help athletes address feared stimuli. Exposure-based therapy may be helpful if an athlete perceives career transition as traumatic and has subsequently been avoiding situations he/she perceives as fearful. In vivo (real life) exposure techniques should be implemented when possible as they are more likely to produce more rapid results and foster greater generalization than imaginal exposure (Cormer & Nurius, 2003). Through exposure-based therapy, the athlete is able to learn how to cope with the heightened emotional response associated with uncomfortable situations (Cormer & Nurius, 2003). Once athletes are better able to understand and effectively address their emotions associated with career transition, the counselor can begin to utilize psycho-educational interventions and cognitive behavioural interventions.

Step 3: Knowledge of Transferable Skills

Athletes would benefit from counselors using psycho-educational interventions that increase their knowledge of transferable skills. The research outlines that it is beneficial to teach athletes about transferable skills (Petitpas, et al., 1992). As Danish et al., (1992) outlines, the first step in successful skill transfer is to create an understanding that individuals actually have skills that are transferable. Athletes must come to understand that they have qualities that are valuable in other areas. If athletes lack this knowledge, the qualities they possess will not be transferable (Danish et al., 1992). It is important for individuals to recognize the usefulness of their skills learned, or knowledge gained as it relates to other life contexts. George Reed was a former member of the Saskatchewan Roughriders, and in 1977 became a sales consultant at McKay Pontiac Buick GMC in Calgary, Alberta. Reed was able to adjust to athletic retirement with relative ease because he was aware that the skills and abilities that he had developed in football were equally valuable in the business environment (Lau, 2003). After athletes have gained an increased knowledge of the importance of transferable skills, the next logical step is to increase their awareness of their own transferable skills.

Step 4: Awareness of Transferable Skills

The next stage in successful skill transfer and successful transition is to address the perception that athletes have of their transferable skills. When athletes believe that the qualities acquired in sport are in fact skills, then they can begin the transfer process (Danish et al., 1992). Athletes who apply transferable skills report better adjustment in career retirement (Petitpas et al., 1992).

There are many examples of athletes recognizing that they have skills that will transfer outside of athletics. According to James F. Molloy, a professor at Northeastern University's College of Business Administration, it is no coincidence that successful athletes often turn into successful entrepreneurs (Cavanaugh, 1989). Molloy outlines that the athletes and entrepreneurs share similar characteristics; "To become a star athlete you need drive and energy and you have to be a risk-taker" (Cavanaugh, p. 23).

Athletes must also understand how other contexts may be similar to the sport in which their transferable skills have been learned (Danish et al., 1992). It becomes important for counselors to help athletes identify what physical and psychological skills acquired through sport can be used in other settings (Mayocchi & Hanrahan, 2000).

Step 5: Perceived Competency
An individual's perceived competency affects the use of transferable skills (Mayocchi & Hanrahan, 2000). When individuals are not aware of, or do not value the skills they have developed and understand when these skills maybe useful in different settings (Yelon, 1992), then successful skill transfer is unlikely (Mayocchi & Hanrahan, 2000). Athletes must believe they are competent in order for them to effectively use their transferable skills. Through counseling, athletes will gain the belief that they have the competency to effectively engage in life after sport. When athletes feel they have a high self-efficacy, and feel that they are capable, the result may be a successful transition (Mayocchi & Hanrahan, 1997).

Cognitive behavioural therapy would be the most effective way to assist athletes in examining their perceived competency. Athletes may have developed distorted thinking patterns, such as black and white thinking,

perfectionistic thinking, and filtering (Cormier & Nurius, 2003). Black and white thinking occurs if athletes believe that they are 'nothing' without their sport or that their skills are 'useless' if they are no longer involved in sport. Perfectionistic thinking occurs if an athlete expects to be immediately successful at a career outside of sport. Filtering occurs if athletes become overly focused on the negative aspects of their transition and forget to include the positive aspects. To effectively challenge such distortions, counselors can utilize cognitive behavioural therapy to help athletes monitor and challenge their negative thinking patterns and focus on their positive assets. As well, teaching athletes strategies like goal setting and action planning may provide the help needed to overcome the barriers to skill transfer (Mayocchi & Hanrahan, 2000).

Step Six: Developing a Support Network
Transitioning athletes may feel isolated from their former social support network. For many athletes, a team provides their social support and is comprised of friends. It then becomes the role of the counselor to help transitioning athletes reconnect or create new support networks. When this support network is missing, counselors need to engage athletes in acquiring a support system outside of sport. Athletes are often used to being involved in a support system in which athletes push each other in a supportive environment. This same type of network needs to be created outside of sport. Transitioning athletes benefit a great deal from ongoing social support. When athletes lack the needed support to develop their use of skills in non-sport contexts, they may experience increased resistance to retirement from sport (Danish et al., 1992). There may be times when athletes lack the foresight to see that they have been applying their transferable skills already to other parts of their life. It is beneficial for athletes to have a positive so-

cial support network that is reminding them of their competency to transfer skills. It is important for parents, coaches and governing bodies to develop a view that places increased importance in athletes' life development rather than only an athletic development (Danish et al., 1992).

Step Seven: Evaluating the Success of the Transition

The general goals of treatment (emotional well-being and perceived competency) can also be used to evaluate the effectiveness of the athlete's transition out of sport, as well as the effectiveness of the counseling interventions. The counselor and athlete can use the previously mentioned steps as indicators for evaluating a successful transition. When the emotionality of the issue, knowledge of transferable skills, awareness of transferable skills, perceived competency and support network have all been successfully addressed in counseling, athletes are given the tools for a successful transition out of sport.

Conclusion

After an in-depth literature review of athletic career transition and transferable skills, a treatment plan was developed for athletes dealing with career transition from sport. The proposed treatment plan incorporates psycho-educational and cognitive behavioural therapy by focusing on the emotionality of the transition as well as the development of transferable skills. Counselors may be effective in assisting athletes to engage in life after sport by helping them realize the skills they need to be successful in other areas of their life are skills they have already acquired through their involvement in sport.

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Performance Psychology among Business Executives in an Achievement Oriented Environment

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Abstract
In this study, the authors explored the relationship between self-efficacy, goal setting,
causal attributions and need satisfaction among 124 executives in a branch leading Fortune
500 company. Findings indicate that need satisfaction, causal attributions of successful
achievements due to strategy and ability, and a conscious focus on goal setting, might be
important determinants of self-efficacy. Findings also indicate that empowering the
employee through increased need satisfaction might be a key to achieve growth and
development inside organizations

Performance Psychology in an Achievement Oriented Environment

In achievement oriented environments exposed to competition, such as companies in business, the performance of individuals is measured by tangible, objective outcomes based on expectations and previous accomplishments. Therefore, companies frequently focus on the growth and development of requisite skills of its employees aimed at maximizing individual performance and corporate financial return. Thus, essential components needed to optimize psychological factors impacting human performance should be of great interest to management and employees in such environments.

One of the most important psychological variables effecting performances is *self-efficacy* (Grant & Greene, 2004). Bandura (1997) defined self-efficacy as the strength of a person's beliefs in their ability to produce performances necessary for successful and anticipated outcomes. Further, he postulated that if someone has the requisite skill and motivation, then self-efficacy is a major determinant of an individual's actual performance. Additionally, self-efficacy is seen to affect an individual's choice of activity, effort expended and persistence at the task. In the business world then, self-efficacy is a key to professional growth and development and ultimately to improved performance. Therefore, experiences and interventions aimed at increasing and strengthening a per-

son's self-efficacy are of critical importance. According to Bandura (1997), experiences of performance accomplishments are the most essential source to self-efficacy. One important question then, is what other psychological variables influence performance, and how is the relation between these variables and self-efficacy? The main purpose of this study was to investigate and explore the relations between self-efficacy, need satisfaction, causal attributions, and goal setting in an achievement-oriented environment exposed to business.

In the present study, participants were one hundred and thirty seven CEO executives and middle managers in a branch leading Fortune 500 company. Predictably, the work environment was intense, performance expectations high and the demands for tangible and escalating financial increases were equally great. Long work weeks in addition to work-related travel were the norm. Clearly, this was a demanding, achievement-oriented environment, where executives and middle managers were measured by financial performance accomplishments favourable to the company.

Theoretical Background
There is a significant amount of research aimed at exploring the effect of psychological variables on performance outcome, goal attainment and achievement. For the purposes of this investigation, the term *performance psychology* will be used to describe those psychological variables believed to most directly impact performance in achievement-oriented environments.

Self-efficacy
Social cognitive theory is rooted in a view of human agency whereby individuals are viewed as executors proactively engaged in their own development and who actively control their actions. Key to this sense of

agency is that individuals believe that "what people think, believe, and feel, affect how they behave" (Bandura, 1986, p. 25). Self-efficacy refers to the specific aspect of the self, concerned with what the individual can do with the skills and capabilities he or she possesses. Self-efficacy has been found to be one of the most important factors (and often the single most important factor) contributing to successful performance in almost every sphere of life endeavours (Grant & Greene, 2004; Marsh, 1993; Bandura, 1986). Bandura defined self-efficacy as follows: "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p.3). Thus, self-efficacy, often called task specific self-confidence, is the aspect of self which refers to how certain (or how confident) the individual is that he or she can successfully perform requisitetasks in specific situations given one's unique and specific capabilities. Measurements used to measure people's self-efficacy often ask for how certain people are that they can achieve certain tasks (Bandura, 2006). Thus, efficacy beliefs are assumed to result from a cognitive process, where people must analyze the task and judge themselves on how well they think they can plan and execute the necessary actions to successfully accomplish specific tasks (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1989). The cognitive aspect of self is prominent, significant and influential in terms of performance, outcome and success.

Sources of self-efficacy.
During the cognitive process people are assumed to interpret different sources of information in order to determine self-efficacy. Of the four principal sources (performance accomplishments, vicarious experiences, verbal persuasion, and physiological states), Bandura (1997) be-

lieved that the most essential and dependable source of self-efficacy is past performance accomplishments. Thus, authentic experiences of successful performance have the greatest influence on self-efficacy (Pajares, 1997). Experiences of mastery (or success) are therefore essential to the development of heightened self-efficacy. While essential and significant, the question remains as to what other psychological constructs both determine and influence performance? Further, when influencing performance accomplishments, a natural consequence should be that these become new mediating sources of efficacy information. An important issue here is that performance accomplishments are interpreted in light of one's self-regulatory processes, such as self-evaluations, causal attributions, strategy use, and goal setting (Zimmerman & Cleary, 2006). Although research concerning self-efficacy beliefs show that it influences other psychological constructs such as goals, for example (Locke & Latham, 2002), we want to explore if other psychological variables which affect performance also influence self-efficacy. If so, these psychological constructs should be important in order to raise self-efficacy beliefs.

Goal Setting

Goal setting theory and research initially emerged from the hypothesis that consciously developed goals strongly impact performance, achievement and success at a task (Ryan, 1970). Locke and Latham (2002) highlight several factors which are essential for goals to positively affect performances: (1) First, the goal has to be specific, meaning that it must be both observable and measurable relative to the desired outcome. This phenomenon of specificity and observation will be referred to as goal setting clarity in the present study. (2) Second is the perceived level of difficulty

regarding the specific achievement task. It is the specific judgement made by the individual which is the critical element relative to assessing task difficulty. Tasks that are at the limit, or close to the limit of the individual's capability (rather than being too high or too low) have the optimal degree of difficulty in order to positively affect performance (Locke & Latham, 1990). This factor will be referred to as goal setting difficulty in the present investigation. (3) Third, the relationship between performance and goal setting is strongest when the individual is deeply committed to the goal (Seijts & Latham, 2000a). The strength of this engagement is referred to as goal setting commitment in this study. The importance of goal commitment is especially prominent when the goals are viewed as difficult by the individual (Klein, Wesson, Hollenbeck & Alge, 1999). Difficult goals require greater effort and are associated with lower chance for success than for easier goals (Erez & Zidon, 1984). (4) Fourth, in order for goals to be useful, effective and ongoing feedback regarding one's progress in relation to goal achievement is necessary (Locke & Latham, 2002). In order to both achieve and improve the desired performance outcome, individuals need to know how closely their performance approximates or deviates from the intended task. As Folkman (2006, p. xv) so aptly states, "Without feedback we are flying blind". The influence of this important moderating variable is referred to as goal setting feedback in the current investigation. (5) Fifth, as the complexity of the tasks needed to achieve a particular goal increases, the individual's capability to possess and implement efficient and effective goal attainment strategies is essential. Since people vary greatly in their ability to do so, the effect of goal setting on performance is smaller on complex tasks than it is on simple tasks (Locke & Latham, 2002). The individual's ability to execute necessary task strate-

gies is therefore an important moderating variable related to goal setting and performance. In the present study, this construct will be referred to as goal setting strategy. Together, these five factors are defined as goal setting moderators by Locke and Latham (2002).

Goal Setting and Performance

The mediators of goal setting affect performance through both cognition (task strategies) and motivation (direction, effort and persistence) (Locke & Latham, 2002). Outcomes from goal-setting research also show that self-efficacy influences goals in several ways. Specifically, findings indicate that people who are more committed to assigned goals, who find and use better task strategies to achieve their goals, and who respond more positively to negative feedback, also have high self-efficacy. People with low self-efficacy do not experience similar benefits (Locke & Latham, 1990; Seijts & Latham, 2001b). Since effective use of goal-setting influences performance, there is a relationship between goal-setting and self-efficacy, making performance accomplishments the most essential source of self-efficacy. Therefore, in this study we wanted to investigate an alternative model concerning the relationship between goals and self-efficacy. Since individuals evaluate their performance in relation to their own mastery goals (Zimmerman & Cleary, 2006), there is reason to believe that the relationship between goals and self-efficacy is mutual. Tschannen-Moran, Woolfolk Hoy and Hoy's model (1989) shows a reciprocal relationship between goals and performance. Bandura's (1997, p.122) model also shows that self-efficacy influences goals, but also that goals influence performance, which again influences self-efficacy (new sources of efficacy information). Thus, goals also influence self-efficacy through mediating cognitive processes. Our first goal in this study was therefore to investigate if the moderators of goal setting are positively related to self-efficacy and if goals influence self-efficacy.

Causal Attributions

The reasons one uses to explain outcomes in achievement domains are typically referred to as causal attributions. In its most basic form, *attribution theory* is concerned with the reasons used by individuals to explain why they either succeeded or failed at a given task. Intra-personal causal attribution theory focuses on the internal processing done by individuals regarding the thoughts and feelings present during this process of judgement and evaluation (Martinko & Thomson, 1998). The present study will focus exclusively on intra-personal attributions.

Causal attribution and self-efficacy.

The approach to causal attribution theory has a well documented influence on self-efficacy (Arbin, Appleman, & Burger, 1980; Marsh, 1984, 1986; Marsh, Carins, Relich, Barnes, & Debus, 1984; Skaalvik & Skaalvik, 2005). In fact, the influence on self-efficacy is related to different dimensions of causality for one's successful and unsuccessful achievements. Weiner (1989) hypothesized that attributions hinge on three primary dimensions; (1) locus of causality (internal vs. external), (2) stability (whether the causes change over time) and (3) locus of controllability (whether the cause is or is not under the individual's control) (Weiner, 1985).Theorists agree that people have a general tendency to utilize self-protecting and self-enhancing attributional patterns (Skaalvik, 1990, 1994; Zuckerman, 1979; Withley & Frieze, 1985), which implies that individuals tend to attribute their own success to internal, stable, controllable factors such as effort and ability, and their failures

to external factors that are both unstable and out of their control.

Self-enhancing attributions generally strengthen an individual's self-view and perceptions of competence, ability and control by enabling them to take responsibility for their successes (locus of causality). A natural consequence of this finding should be that individuals who attribute their successful performances to their own abilities would experience concomitant increases in self-efficacy. Self-efficacy should be positively enhanced (or at least maintained) when causal attributions of successful achievements are made due to ability and strategy. Thus, strategy may beindicative of ability. Because of the tendency toward self-protection, unsuccessful achievements are generally not attributed to low ability or competence abilities (Skaalvik, 1990, 1994). Since successful outcomes are judged to result from one's own capabilities and strengths, it seems reasonable to hypothesize a positive relationship between self-efficacy and internal (both controllable and uncontrollable) causal attributions following successful performance. Research also shows that individuals tend to protect the self by attributing unsuccessful outcomes behaviour to causal dimensions and controllable factors (e.g. "I can change next time") or to external factors that are unstable or due to external variables such as another person or the situation (e.g. "I didn't succeed because of the unique circumstances in this task and as soon as those circumstances change, I will be successful") (Skaalvik, 1990, 1994; Zuckerman, 1979; Withley & Frieze, 1985).

In general, internal, unstable and controllable attributions following failure lead to positive future success because the individual believes that they can control the cause of the unsuccessful behaviour (Bandura, 1997). On the other hand, attributions made to internal, stable and uncontrollable causes after failure, such as lack of ability, may, over time, lead to negative future expectancies and 'learned helplessness' because the individual perceives that they have little control over the cause of their unsuccessful behaviour (Abramson, Seligman, & Teasdale, 1978; Maier & Seligman, 1976; Dweck, 1975). Because people tend to engage in self-protecting attributions when experiencing failure in achievement situations, there should be a small or no reduction to self-efficacy beliefs. As with most self-regulatory processes, there is empirical evidence showing a reciprocal relationship between peoples' causal attributions and their perception of personal efficacy (Zimmerman & Cleary, 2006). For example, highly efficacious people tend to believe that performance outcomes are personally controllable (failure due to effort), whereas people with low self-efficacy tend to believe that performance outcomes are uncontrollable (failure due to ability) (Bandura, 1997). Thus, the relationship between causal attributions and self-efficacy is viewed as mutual.

Our second goal in this study was to investigate if causal attributions made to ability and strategy following successful achievements are positively related to self-efficacy, and if causal attributions of successful achievements to ability and strategy influence self-efficacy.

The Environmental Influence and Self-Determination Theory

Based on the view of *social cognitive theory* described by Bandura (1997), individuals are both products and producers of their environment and of their social systems. In essence, people are viewed as self-organizing, proactive, self-reflecting and self-regulating. Human functioning is viewed as the product of a dynamic interplay of personal,

behavioural, and environmental influences. Therefore, it is important to investigate environmental influences related to performance psychology.

The value and importance of intrinsic motivation in the achievement process cannot be overstated. Deci and Ryan (1985, p. 8) define intrinsic motivation as: "The life force or energy for the activity and for the inward pursuit to feel competent, self-determining and to enjoy the activity". One basic foundation of self-determination theory supports the existence of basic needs that must be satisfied in the individual's environment in order to achieve personal growth and development (Deci & Ryan, 2002). Thus, in order for individuals to proactively engage in their own learning and development, intrinsic motivation is a requisite and desirable component of achievement pursuits. Social cognitive theory emphasizes the importance and presence of necessary conditions in the environment in order to achieve, maintain or increase intrinsic motivation. The environmental conditions necessary for achieving and developing intrinsic motivation are the universal psychological need for human growth and development (Deci & Ryan, 2002). Further, it is believed that these needs are fundamental for all humans regardless of culture or stage of development (Deci & Ryan, 2002). Deci and Ryan especially emphasize the importance of three main groups of psychological needs, forming the foundation for a persisting and enduring intrinsic motivation. These three psychological needs are: (a) the need for competence, (b) the need for autonomy and (c) the need for relatedness.

The need for competence refers to the general feeling of functioning effectively in one's social and achievement environment. The need for competence in one's environment highlights the importance of experi-

ences, or the lack of experiences, where the individual has the opportunity to optimally utilize and display their strengths and capacity (Deci, 1975; Harter, 1983; White, 1959). The need for competence also leads humans to seek challenges which are optimal in relation to their ability, skills and capacity. Bandura (1986) argues that successful accomplishments in these types of tasks - where demands match capacity - have an especially desirable, strengthening and positive effect on self-efficacy as well as motivation (Csikszentmihalyi, 1988).

The need for self-determination or autonomy refers to the individual's perception or understanding of being the source to, or origin of, the achievement behaviour (de Charms, 1968; Deci & Ryan, 1985; Ryan & Connell, 1989). Self-determination implies that actions originate from one's own interests and values and emanate from personal initiative. Even though actions and behaviour could be affected by external sources such as requirements for certain tasks or in agreement with determined values, the individual can still feel a sense of autonomy and self-determination.

The need for relatedness highlights the feeling of connectedness and attachment to other people. It carries a dual view that the individual is taking care of others and that others are caring for the individual. Humans have the need to feel that they belong to, and with, other people, both individuals and in a community or larger society (Baumeister & Leary, 1995; Bowlby, 1979; Ryan, 1995). The need for relatedness does not consider the wishes of others as the sole or primary determinant for specific outcomes, but rather seeks a feeling of integration, acceptance and support from others as members in a mutually safe community.

Self-determination theory states that social environments that fulfil the basic psychological needs for individual growth and development will result in motivated, engaged and successful individuals who achieve the desired outcomes in specific, achievement related tasks (Deci & Ryan, 2002). Environments which prevent the fulfilment of these basic needs will be populated with individuals who have reduced motivation, less growth, lower integrity, and less experience of well being. Thus, intrinsic motivation through need satisfaction is a prerequisite for growth and development. Therefore, need satisfaction should influence the most important psychological variable found to affect performance; self-efficacy.

Our third goal in this study is to investigate if need satisfaction is positively related to self-efficacy. Because of the importance of intrinsic motivation in the achievement process and the importance of need satisfaction in order to achieve this, we wanted to investigate if need satisfaction might be key in positively influencing other performance psychological variables. The performance psychological variables of interest were: self-enhancing causal attributions to strategy and ability when explaining successful achievement, goal-setting and self-efficacy.

Method
Participants and Procedure
One hundred and thirty seven CEO executives and middle managers in a Norwegian Fortune 500 company were asked to voluntarily participate in an on-line questionnaire concerning targeted thoughts, feelings and actions at work. The CEO executives and middle managers are hereafter defined as executives. Periodic reminders by mail and by an internal project manager were utilized. The final results were based on responses from 124 executives representing a 90.5% participation rate. A gender breakdown of

the subjects included 56.5% men and 43.5% women. In terms of age, 4.8% < 30 years, 61.3 % aged 30 to 45 years, 29.8 % aged 46 to 60 years, and 4% > 60 years.

Instruments
Two of the instruments used in this study were based on previously developed scales (causal attribution and self-determination) and two were developed for the purpose of this particular study (self-efficacy and goal setting). The self-efficacy scale examined leadership capabilities, causal attributions of successful and unsuccessful achievements at work, goal setting, and the psychological construct of need satisfaction based on self-determination theory. The causal attribution and self-determination instruments, both having been used successfully and appropriately in previous research studies, were translated into Norwegian by the authors with minimal adjustments as a result of the translation. All instruments used a seven point scale, ranging from completely untrue (1) to completely true (7).

Attribution
Attribution was measured by means of the 20- item Forced Choice Attributional Style Assessment Test (ASAT - I) developed by Anderson, Jennings & Arnoult (1988). The scale was modified and used to measure intra-personal attributional style in specific work-related situations. Items measuring interpersonal behaviour were taken out in the modified version along with the choices relating to personality traits and mood. Attributions in general situations, such as "You have failed to complete the crossword puzzle in the daily paper", were not relevant to specific work performance and were thus taken out of the original test. This resulted in a six-item questionnaire for specific work related situations (three for positive outcomes and three for negative outcomes). Four different choices were offered for each

item, relating to strategy, ability, effort and circumstances, which gave us 8 different sub-scales. The participants were asked to consider the causality of their performance at work on a seven-point scale ranging from completely untrue (1) to completely true (7), for each of the 4 variables (strategy, effort, ability and circumstances). The adjusted measurement was not a forced choice as in the original scale because of the desire to investigate relationships between the different choices. For example (item 1, positive outcome): "You have just received successful feedback on tasks performed at work." (a) "I used the correct strategy to achieve it", (b) "I'm good at this", (c) "I worked really hard to achieve it", (d) "Other circumstances (people, situation, e.g.) influenced the result".

Self-determination.
We used the Basic Psychological Need Satisfaction at Work Scale (Baard, Deci, & Ryan, 2004) to measure basic psychological needs. The scale was originally a 21-item questionnaire measuring three need-satisfaction sub-scales. The authors translated the questionnaire into a 20-item questionnaire, including: autonomy (6 items), competence (6 items) and relatedness (8 items). The participants were asked to consider their feelings about their job during the last year and to indicate how true the 20 statements were on a seven-point scale. For example: "I feel like I can make a lot of input in deciding how my job gets done" (autonomy). "People at work tell me I am good at what I do" (Competence). "I really like the people I work with" (Relatedness). The reliability for the total need satisfaction scale was reported to be .89, and the three sub-scales - autonomy, competence and relatedness - .79, .73 and .84, respectively (Deci et. al., 2001). In this study, the Cronbach's Alpha for the total need satisfaction was .79, and the three sub-scales .67, .61 and .64, respectively. We

chose to use the total need-satisfaction scale in the further statistical analysis because of higher reliability of it over the three sub-scales separately.

Self-efficacy.
The importance of reflective and accurate conceptual analysis and expert knowledge of what it takes to succeed in a given pursuit is essential in constructing self-efficacy scales (Bandura, 1997; Pajares & Urdan, 2006). Therefore, we investigated the most important requirements viewed by participants as essential in order to succeed in their specific and achievement-oriented environment. This process of inclusion of items was done in close co-operation with the executive leader group in this particular company. We developed a 32-item scale measuring four sub-scales of self-efficacy (8 items each). The participants were asked to consider how certain they were that they could manage different specific work-related tasks. The tasks and situations represented challenging obstacles to overcome for the participants, and were described using the label: 'the activities are not easily performed' (Bandura, 2006). The four sub-scales were: (1) General capability as a leader, (example: "How certain are you that you can manage reorganizations and finish internal changes without special turbulence.") (2) Capability as a leader related to development, learning and motivation of employees, (example: "How certain are you that you can pay attention to and challenge all your closest employees through encouraging and constructive feedback?")" (3) Capability as a leader in order to build relationships, (example: "How certain are you that you can establish a constructive and efficient cooperation with a challenging customer?)" and (4) Capability as a leader to execute management by objectives, (example: "How certain are you that you can be clear and communicate the desired directions to all your closest employees?)" In or-

der to assure high validity, we developed an additional item to measure the individuals' 'felt importance' for each item measuring self-efficacy, for example, "How important do you think this is?" The mean score for 'felt importance' for the total scale was 6.2 with a standard deviation of .65, indicating that the participants perceived that the leadership capabilities described in the measurement tool were truly important for them in their roles as executives. The Cronbach's Alpha for this measurement was .97.

Goal setting.

The importance of goal setting moderator variables in order for goals to have a desirable and positive effect on performance is quite clear from the goal setting literature (Locke & Latham, 2002). We therefore developed a measurement for goal setting based on these important moderators resulting in a15 item questionnaire, measuring the five sub-scales. Participants were asked to consider how true each statement was on a seven point scale concerning their thoughts about their own work. For example: "I have specific, clear goals to aim for in my job" (Clarity). "An average individual will think my goals at work are difficult" (Difficulty). "I receive concrete feedback related to my goal attainment at work" (Feedback). "I have concrete plans which tell me how to reach my goals at work" (Strategy). "It's difficult for me to be serious about my goals at work" (Commitment). All sub-scales had three items. The Cronbach's Alpha of the instruments are shown in Table 1.

Results

Table 1 shows the statistical means, standard deviations, and correlations among the psychological variables in the investigation. Correlations among the variables ranged from relatively strong to close to zero. There were relatively strong and moderately strong correlations between the moderators in goal

setting (Table 1). Among the dimensions of causal attributions of successful achievements there was only one strong correlation, namely attribution to ability and strategy (.77). The correlation between attribution of successful achievements to effort and ability was moderate (.41) and the remaining correlations were weak. The dimensions of causal attributions for unsuccessful achievements to strategy, effort, and ability were moderate (between .30 and .47). The remaining correlations among the dimensions of attributions of unsuccessful achievements were weak or close to zero.

There were relatively strong correlations between self-efficacy and goal strategy (.62), goal clarity and attribution of successful achievement to strategy (.60), and between goal strategy and attribution of successful achievements to strategy (.62). Self-efficacy correlated moderately with goal clarity (.51), goal feedback (.45), need satisfaction (.49), attribution of successful achievements to strategy and ability (respectively .46 and .41). Not surprisingly, self-efficacy correlated negatively with attribution of unsuccessful achievements to ability (-.24).

The measures of attribution, goal setting, self-determination and self-efficacy were analysed by means of exploratory factor analysis with principal component extraction, varimax rotation, and eigenvalues greater than 1. Four factors were extracted as shown in Table 2, explaining 64 % of the variance in the equation. The different moderators of goal setting, attribution of successful achievements to strategy and ability, need satisfaction at work and self-efficacy leadership capability constituted one factor which we have termed "Enhancing self-efficacy". Interestingly, these causal attributions of success to ability

and strategy are the two most dominating   attributions together with attributions of

Study variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Self-efficacy	_	.51	.45	.24	.62	.30	.49	.46	.41	.25	.18	.04	-.24	-.18	-.07
2. Goal clarity		_	.65	.46	.74	.49	.42	.60	.38	.15	.13	.04	-.07	-.02	-.14
3. Goal feedback			_	.25	.54	.47	.39	.48	.26	.18	.05	.03	-.02	-.14	.01
4. Goal difficulty				_	.32	.12	.16	.28	.34	.30	.16	.19	-.03	.03	.07
5. Goal strategy					_	.53	.49	.62	.43	.18	.20	.13	-.08	-.17	-.13
6. Goal commitment						_	.54	.51	.51	.26	.16	.22	-.01	.02	-.11
7. Need satisfaction at work							_	.36	.35	.36	.25	.16	.03	-.15	-.02
8. Attribution success strategy								_	.77	.32	.10	.40	-.07	.02	-.14
9. Attribution success ability									_	.41	.20	.22	-.18	.03	-.16
10. Attribution success effort										_	.27	.02	.05	-.16	.02
11. Attribution success circumstances											_	.15	.12	.14	.16
12. Attribution failure strategy												_	.30	.41	.03
13. Attribution failure ability													_	.47	.14
14. Attribution failure effort														_	.05
15. Attribution failure circumstances															_
M	5.8	5.9	5.5	5.6	5.7	6.5	5.0	6.0	6.0	5.8	4.9	5.1	3.3	4.1	4.0
SD	0.6	0.9	1.1	1.2	0.9	0.6	.46	0.8	0.7	0.9	1.4	1.3	1.5	1.5	1.3
Cronbach's alpha	.96	.73	.69	.89	.74	.55	.79	.88	.81	.80	.89	.79	.89	.80	.88

Table 1 Zero-Order Correlations and Descriptive Statistics
Note. Numbers in bold represent significant correlations.
Correlation of .23 or higher are significant (p < .01) and of .18 or higher are significant (p < .05).

successful achievements to effort in the investigation, as shown in Table 1. They both represent internal attributions of success. Therefore, it is important to note that the attribution of success to effort loads moderately on this factor and at the same time relatively strong on the fourth factor, which we have termed "Self-efficacy neutral 2". Further, commitment to goals, clarity related to goal setting, strategy related to goal setting and self-efficacy are the other dominant variables in the investigation as shown in Table 1. They all loaded on factor one. Since the purpose of this study was to investigate how these psychological variables relate to self-efficacy, the other factors were labeled self-efficacy neutral because of the weak loadings for self-efficacy on these factors. The exception is Factor 2, named "Self-defeating attributions", because of its strong loadings on attribution of unsuccessful achievements to effort, ability and strategy. The self-defeating attributions factor is also based on the fact that self-efficacy related negatively to this factor (-.24). Factor 3 had relatively strong loading on attribution of unsuccessful achievements to circumstances. Factor 4 had relatively strong and moderate loadings on attribution of successful achievements to effort and circumstances.

Variables	Enhancing self-efficacy	Self-defeating attributions	Self-efficacy neutral 1	Self-efficacy neutral 2
Goal setting strategy	*.81*	-.12	.13	-.26
Goal setting commitment	*.78*	.06	.01	-.17
Goal setting clarity	*.78*	-.12	17	-.37
Attribution success strategy	*.73*	.18	-.46	.14
Self-efficacy leadership capability	*.73*	-.24	.07	-.02
Attribution success ability	*.71*	.10	-.44	.28
Need satisfaction at work	*.66*	-.00	.28	.12
Goal setting feedback	*.65*	-.17	.33	-.31
Goal setting difficulty	*.52*	.16	-.02	.15
Attribution failure effort	-.09	*.78*	-.09	-.30
Attribution failure ability	-.11	*.71*	.30	-.20
Attribution failure strategy	25	*.71*	-.25	-.11
Attribution failure circumstances	-.12	.23	*.61*	.29
Attribution success effort	.44	.07	.07	*.66*
Attribution success circumstances	.29	.35	.36	*.41*

Table 2 Exploratory Factor Analysis of the different psychological variables
Note. Numbers in bold represent factor loadings.

In further data analysis we wanted to explore the influence of need satisfaction, goal setting and causal attributions on self-efficacy. Based on the theory review in the introduction, the correlation matrix shown in Table 1 and the factor analysis shown in Table 2, we used a model where attribution of successful achievements to strategy and ability was one of the observed variables, self-defeating attributions to strategy, effort and ability was another one, and the sum of the goal setting moderators clarity, commitment, strategy and difficulty was the third one. The reliability for the new scales was .90 (6 items), .85 (9 items) and .87 (13 items) respectively. Deci and Ryan (2002) especially argue for the importance of addressing the psychological needs of autonomy and competence. We therefore used these two needs as the last observed variable in the model, "Need satisfaction". The reliability of this scale was .78 (12 items). These observed variables were analysed by multiple regression analysis using the enter method, where self-efficacy leadership was the dependent variable and attribution of successful achievement to strategy and ability, goal setting and need satisfaction were the predictor variables. The model accounted for 43% of the variance in self-efficacy.

All predictor variables had significant Beta coefficients on the dependant variable, except from need satisfaction on self-defeating attributions. Goal setting was the strongest predictor of self-efficacy (.32) followed by need satisfaction (.24) and attribution of successful achievements to strategy and ability (.20). Interestingly, need-satisfaction was a predictor of both attribution of successful achievements to strategy and ability, goal setting, and self-efficacy (.20, .40 and .24 respectively). Thus, in the model need-satisfaction related to self-efficacy both directly and indirectly, through attribution and goal setting. Not surprisingly, self-defeating

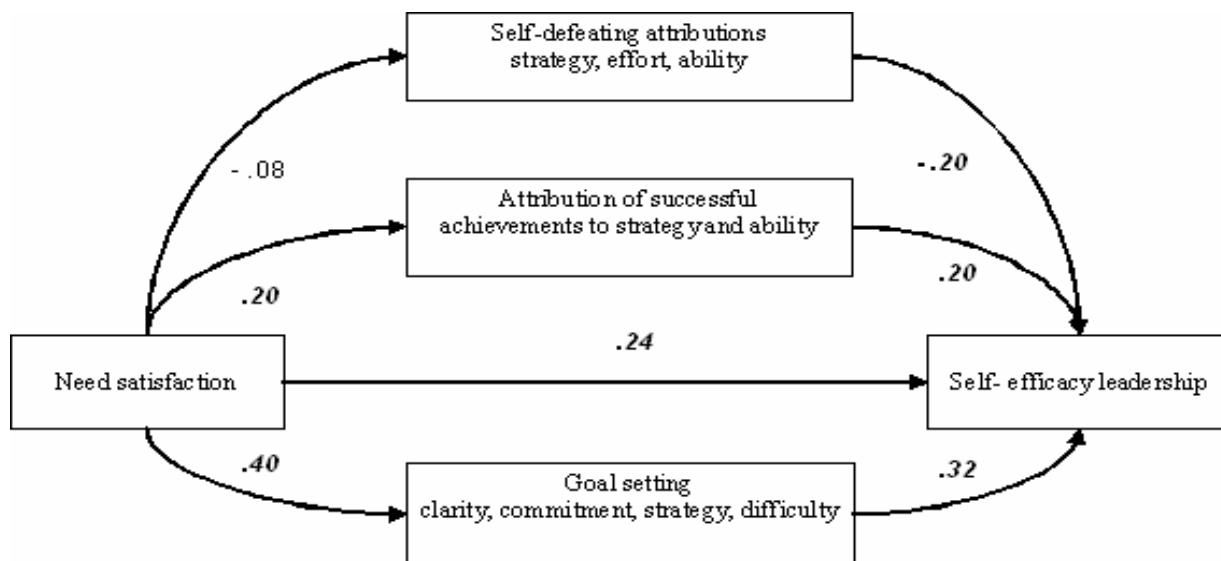attributions negatively predicted self-efficacy (-.20).

Figure 1 Linear regression analysis using the enter method
*Note.*Numbers in bold represent significant Beta coefficients values (p < .05).

Discussion

The main purpose of this study was to explore the relationship between self-efficacy, goal setting, causal attributions and need-satisfaction among executives in an achievement-oriented corporate environment exposed to competition. Our predictions, specified in our three expectations, were generally confirmed. The first expectation predicted that there was a positive relationship between the moderators of goal setting and self-efficacy and that goal setting influences self-efficacy. The findings support this expectation, supported by both correlational analysis and factor analysis. The regression analysis shows that goal setting influenced self-efficacy. Further, our second expectation predicted that there would be a positive relationship between attribution of successful achievements to strategy and ability and self-efficacy, and that causal attribution of successful achievements to ability and strategy would positively influence self-efficacy. Results from the correlational analysis and

factor analysis confirmed the first part of this prediction, whereas the regression analysis confirmed the second part. The theory review also predicted that self-efficacy would be negatively related to attribution of failure due to ability. This was also confirmed, although the negative relationship was weak. Our last expectation predicted that there would be a positive relationship between need satisfaction and self-efficacy and our findings confirmed this. Also, the regression analysis showed that need satisfaction influenced both causal attributions of successful achievements to ability and strategy, goal setting and self-efficacy.

There is a long history of research that states that goals affect performance (Locke & Latham, 2002). During self-regulatory processes individuals evaluate their performance in relation to their own mastery goals (Zimmerman & Cleary, 2006). Since performance accomplishments are the most essential source to self-efficacy, goals should also in-

fluence self-efficacy. As Bandura (1986) states: "Tasks which are at the limit, or close to the limit of the individual's capability (rather than being too high or too low) have the optimal degree of difficulty in order to positively affect self-efficacy." The factor analysis shown in Table 2 indicated that there is an especially strong relation between the three moderators of goal setting: strategy, clarity and commitment, and self-efficacy, in that each loaded strongly on the self-efficacy enhancing factor (.81, .78 and .78 respectively).

These findings support our expectations that goals are positively related to self-efficacy. Thus, when loading on the same factor the variables have similar score values, for example high score on goal strategy gives high score on self-efficacy and vice versa. According to our results, the moderator variables of strategy, clarity, commitment and difficulty should be of special importance to individuals seeking to examine performance success in order to develop or maintain high self-efficacy. Regression analysis results confirmed this fact: goal setting, measured by the sum of these four moderator variables, was the strongest predictor (.32) of self-efficacy among the variables in this study (see Figure 1).

Performance accomplishments are interpreted in the light of people's self-regulatory processes. Our results give reason to believe that self-set goals which are optimal concerning the moderators of goal setting theory, could influence self-efficacy. Thus, goal setting could be a key in working towards raised self-efficacy. We should warn, however, against rigid causal interpretations. This study involved correlational analysis of cross-sectional data and conclusions regarding causal predominance between goal setting and self-efficacy cannot and should not be made. However, these findings are

important regarding future research on self-efficacy and goal setting.

The correlations between self-efficacy and attributions of successful achievements to strategy and ability are moderately strong, as shown in Table 1(.46 and .41 respectively). On the other hand, the correlations between self-efficacy and causal attributions of unsuccessful achievements to strategy and ability were not significant and were negative (.04 and -.24 respectively). Further analysis through factor analysis showed that attributions of successful achievements to strategy and ability loaded strongly on the self-efficacy enhancing factor as shown in Table 2 (.73 and .71 respectively). The relationship between self-efficacy and attribution of success to strategy and ability is a positive one. The results from the regression analysis also show that attribution of success to ability and strategy had a positive impact on self-efficacy, whereas attribution of failure to ability had a weak and negative impact. Not surprisingly, results from the regression analysis showed that attributions of unsuccessful achievements to internal causal dimensions (ability, strategy and effort) had a negative impact on self-efficacy (Figure 1).

The strong correlation between attribution of successful achievements to strategy and ability (.77) is worth noting. A possible explanation of this finding may be that executives in demanding, achievement-oriented environments perceive ability as a prerequisite for choosing and employing effective and adaptive strategies when working with a task. Thus, the close relationship between attribution of successful achievements to strategy and ability might indicate that these executives' perceived that their strategic skills were predicted by their abilities (Moen & Skaalvik, 2008). In order to facilitate an effective process of development to perform

better and raise self-efficacy, causal attributions could be key. Again, we should be careful not to draw inappropriate conclusions about causality. However, this should be important concerning future research on causal attributions and self-efficacy.

Self-determination theory indicates the importance of basic needs which must be satisfied in the individual's environment in order to achieve growth and development through intrinsic motivation. Thus, individual need-satisfaction should be essential in order to achieve performance accomplishments and thereupon raised self-efficacy. The correlation between need-satisfaction and self-efficacy was positive and moderately strong (.49) as shown in Table 1. Further, the factor analysis showed that need-satisfaction was positively related to self-efficacy; Need-satisfaction loaded strongly (.65) on the self-efficacy enhancing factor as shown in Table 2. Interestingly, the regression analysis showed that need-satisfaction predicted both causal attributions of successful achievements to strategy and ability, goal setting through the moderator variables of clarity, strategy, commitment and difficulty, and self-efficacy (.20, .40, and .24 respectively). The need for competence refers to the individual's feeling of being effective in the environment. Specifically, in this study, it means that an executive's contribution is of significant importance to the organization, and that the individual has the opportunity to use his or her maximal capacity and unique strengths within the organization. This might help encourage causal attributions to ability when explaining successful outcome achievements.

As discussed earlier, Bandura (1986) argues that accomplishments on tasks that are at the limit of the individual's capacity have an

especially desirable and enhancing effect on self-efficacy. Also, facilitating for employees so that they can use their capacity and unique strengths inside the company should be of great importance. The need for autonomy, or the individual's perception that they are the source of their actions might contribute to strategic thinking. Specifically, fulfilment of the basic needs autonomy and competence should mean that executives are given both the opportunity (autonomy) and the confidence (competence, self-efficacy) to do their own planning at work and to carry out these plans. Thus, executives are encouraged to be involved in their own goal setting and should further be encouraged to decide and execute the necessary actions in order to solve tasks in a particular achievement domains or challenges. This should contribute to raised awareness about responsibility, and this awareness should affect the cognitive interpretations about causality when explaining one's own performances. Thus, need-satisfaction could influence causal attributions to internal causal dimensions such as ability, strategy and effort when explaining successful achievements. Interestingly, our results from the regression analysis, where need-satisfaction predicted causal attributions of successful achievement to ability and strategy, confirms this (Figure 1). Also, being encouraged to become self-determining in own work should influence goal setting since this involve taking responsibility for own planning. Interestingly, our results also confirmed this (Figure 1).

Further, the value of intrinsic motivation cannot be overstated in achievement processes. Thus, need-satisfaction should be fundamental in achievement-oriented environments. A consequence of this should be that in order to achieve and perform

better, need-satisfaction must be fulfilled. Interestingly, our results show that need-satisfaction also predicted self-efficacy (Figure 1). Again, we should be careful not to draw in appropriate conclusions about causality. However, these indications should be of great interest. Is need satisfaction a key to achieve individual growth and development in achievement-oriented environments exposed to competition? And is need satisfaction contributing to more effective goal setting and to more functional causal attributions in order to develop self-efficacy? People occupied in helping relationship roles, for example executives with management responsibility, should be aware of this. The results indicate that effective helping relationships should be built upon self-determinacy and competence values. Thus, if the individual perceives that he or she is empowered in his or her work and learning inside the company, this might be a key to achieve growth and development through more effective and efficient goal setting, causal attributions and ultimately to raised self-efficacy.

The present study indicated that need-satisfaction, causal attributions of successful achievements to strategy and ability, (and not unsuccessful ones), a conscious focus related to goal setting and the important moderator variables of clarity, strategy, difficulty and commitment, could be important determinants of self-efficacy among executives working in an achievement oriented environment exposed to competition. Results from the current investigation are not based on longitudinal data sources, so future research of a longitudinal nature should be undertaken.

Practical suggestions.
The executives in the company we studied worked in a really hectic environment. They were expected to (and expected to) constantly upgrade their technical and leadership skills. High effort and good results were expected. We undertook several studies based on the data we collected during a period of one year with this company.

In spite of a hectic working environment (or, particularly when the situation is hectic), we learned that it is essential to take time to reflect upon own work and personal development. This process seems to be significantly more effective and efficient with the help from another person, e.g. a coach. Importantly, organizational theorist's such as Schein (2004) also argue that the key to learning is based upon reflection and experimentation, and that this takes time, energy and resources (p.395). Thus, in order for organizations to establish a positive learning culture, in which people grow and develop, they must invest time and energy in order to involve the employee in reflecting upon the learning process.

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Psychological Intervention with the Virginia Tech Shootings: Lessons Learned and Recommendations

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From: Dr. John Heil

Letter to Readers and Reviewers

The response to the mass shootings on April 16, 2007 at Virginia Tech challenged all community public health and public safety resources, including mental health services.

There were two primary centers of mental health service delivery in response to the shootings: Virginia Tech University and Montgomery Regional Hospital (MRH). MRH was the primary site of medical care provided in response to the shootings. In the immediate aftermath of the incident, the hospital also became a gathering place for the loved ones of those known (or feared) to be killed or injured. In so doing the hospital filled a critical void that existed from the time of the shootings, till the university based support and information center became operational.

The focus of mental health services at MRH included those wounded, the families and loved ones of the victims of the shootings, and hospital staff. Although there is a growing base of theory and practice to guide response to mass casualties, our retrospective evaluation has revealed significant gaps in this knowledge base, and has identified useful lessons learned in the process of responding to the tragedy.

As a consequence, those involved in service delivery have elected to undertake a "lessons learned" exercise in the hope that should a similar event unfortunately take place, mental health providers would be better prepared to respond, and as a consequence the quality of services provided would be maximized. We are following the "lessons learned" model, cited in Gheytanci, A. et al. (2007), which identifies 5 inter-related processes:

1. Collection of the lesson

2. Validating or verifying the accuracy of the lesson

3. Storing the lesson

4. Disseminating the lesson

5. Reusing the lesson

Through a sequence of meetings and presentations (which are detailed in the report), we have begun to move forward simultaneously on the five components of the model. At this juncture, we have elected to request external review and comment. In selecting reviewers from diverse backgrounds, we hope that the final report will broad in its scope and presented in a way that is relevant to a wide audience. The document provided for review is the report submitted to the Virginia Tech Review Panel established by executive order of Governor Kaine. While not in finished form, the urgency of the timeline of the Review Panel did not allow for a more detailed and polished document. However, we do feel that the "broad strokes" of the lessons learned are accurately articulated.

Currently, the impressions and conclusions are stored as discrete units of information (vs. paragraph style), and organized within lessons learned categories, to facilitate comment and revision. Implicit in our approach is the intent to develop a consensus perspective, which is true to the collective experience of those involved in service delivery. The experience of the shootings and their aftermath is an emotionally provocative one for service providers. Because the emotions evoked by the event are important and a valid source of inquiry, the lessons learned process began with a reporting of events and the "thoughts and feelings" that these events evoked. While we have worked to present a fair and accurate impression, we have not attempted to sanitize the report emotionally.

The goal of the review is to clarify, validate and expand the lessons learned document. In reviewing and critiquing the document **please feel free to comment on any or all of the following:**

Clarity, logical integrity and persuasiveness of the impressions presented

Perception of the report as fair and balanced, or alternately, biased or incomplete

Any suggestions regarding the "lessons learned" process as it relates to collecting, validating, storing, disseminating and reusing the lesson

Executive Summary

The response by mental health counselors to the April 16, 2007 shootings at Virginia Tech is worth reviewing by those who study similar mass crises or may face them, especially in college communities. The authors provided services at Montgomery Regional Hospital to victims and their loved ones and to hospital staff and affiliates. Subsequently, they initiated a lessons-learned analysis.

Sanctuary: Emotional restoration began with finding a safe haven
Administrators at Montgomery Regional Hospital set apart a section of their institution for the use of victims' displaced friends and loved ones. This provided multiple benefits.

Information: Prompt, accurate information was precious
Information allayed fears and enabled coping. The report describes communications providing aid and comfort to victims and their loved ones. Rumors and broadcasts filled voids with ready answers, sometimes insensitive, other times countertherapeutic or even traumatizing. While laws and policies have good reasons to limit official networks' release of information, this was problematic in the mass-trauma setting.

Boundaries: Some media behavior was inappropriate
The public relies on the mass media. However, some non-local broadcast media representatives interfered with hospital staff, serving their news organizations by adversarial, aggressive intrusion requiring vigilant resistance. This sapped energies needed elsewhere. Media behavior angered many in the community.

Imagery: Most commonly visual, this had potent effects both in trauma and in therapy
Intrusive recollection characterizes traumatic stress disorders. Visiting the survivors - an innovative solution - allayed first responders' and medical providers' traumatizing images of damaged victims. Contrariwise, exposure to the perpetrator's recorded communications, aired by the media, further traumatized some.

Alliances: Mental health providers benefited from partnerships with other professionals
Quickly formed partnerships were needed to direct the response, flexibly and without territoriality. Both opportunistic and well-meaning partners appeared, needing to be vetted for optimal assistance.

Caretaker Needs: Some helpers needed help afterwards
The hospital staff's mindset included the expectation that crisis counseling generally would be sought as needed, with participation encouraged, but with individual choice respected.

Resolution: Framing what happened
Ultimate coping required coming to terms with the doer and the deed, with the burden of having borne witness to the event, and with the impact of the event on the sense of community.

Introduction

In response to the Virginia Tech shootings, a psychological crisis counseling team was assembled at Montgomery Regional Hospital (MRH), the primary site for medical service delivery to the victims of the shootings. This team provided services to victims of the shootings, their families and loved ones, and hospital staff and affiliates. Approximately 30 professionals of varied backgrounds, drawn from local and national organizations, were involved in the delivery of psychological counseling services at MRH.

Following the incident, members of the response team gathered to conduct an after-action review of events and debriefing. The comments recorded during the review and debriefing, in conjunction with documentation of events during the crisis by the lead author, served as a starting point for the development of this lessons-learned project. Subsequently, the document was developed further through a cyclical process of review and revision. A Report was presented to the Governors Panel reviewing the Virginia Tech Shootings. Subsequently, the process of review and revision continued blending comments from participating providers and external reviewers, also incorporating information from the psychological literature and commentary garnered through a series of seminar presentations to professional audiences. This has resulted in a two-part report: Part 1 is a statement of lessons learned (an updated and revised version of that submitted to the VT Panel); Part 2 focuses on intervention strategies.

This project is modeled after the Lessons Learned Systems approach of Gheytanci et al. (2007), which is drawn from the work of Weber, Aha, & Becerra-Fernandez (2001). It includes five components: (1) Collection of the lesson; (2) Validating or verifying the accuracy of the lesson; (3) Storing the lesson; (4) Disseminating the lesson; and (5) Reusing the lesson.

Gheytanci et al. (2007) note that substantial effort has been put into addressing the initial steps of the lessons-learned process (i.e., collecting, validating/verifying and storing the lesson) but problems in dissemination and reuse of lessons learned are significant, and undermine the opportunity to benefit from the knowledge gained.

In keeping with this caution, a dissemination plan is being developed in tandem with this report.

Method

This report is an assessment based on the facts, reflecting the collective impression of professionals whose judgment is informed by direct exposure to the event, by formal training in psychological concepts and methods, and by professional experience in psychological intervention. The report has been developed through a repeating cycle of information assimilation, review and revision.

Document Development

Following completion of its response to the acute phase of the crisis, the intervention team conducted a post-event review and debriefing. At this time, the team elected to consolidate lessons learned and prepare a formal report. Those team members who elected to participate are listed above as authors.

The development of the report began with the creation of a timeline of events, highlighted by personally compelling moments and professionally relevant experiences. An initial working document was developed by the lead author, who

served as coordinator of the intervention team. The document blends the collective experience of the treatment team, incorporating contemporaneous documentation of events by the lead author as the response to the crisis unfolded.

A summary of the first draft was presented as part of a Continuing Medical Education (CME) program, and the full draft document was distributed for review and comments. A revised document was created that incorporates comments from the contributing authors, as well as the participants in the CME program – most of whom provided crisis counseling in some setting in response to the tragedy. In addition, two VT students who were affiliated with the lead author's clinical practice, Psychological Health Roanoke, participated in the seminar and provided comments.

Following additional review by the authors, a report was provided to the Virginia Tech Review Panel (VTRP), *Psychological Intervention with the Virginia Tech Mass Casualty: Lessons Learned in the Hospital Setting*. That is considered a preliminary document, provided in unfinished form in response to the exigency of the timeline under which the VTRP was operating.

The report submitted to the Review Panel was subsequently distributed to a set of external reviewers for additional critique and comment. The reviewers are a diverse group of psychologically minded professionals representing a broad base of knowledge and experience.

In service of the goal of disseminating the lessons learned, a series of training seminars have been presented to professionals. This elicited additional comment and critique,

which has also been incorporated into the final report.

In summary, the final document is the product of a cycle of review, comment and revision. It includes input from professionals within and outside of the mental health field, as well as those with and without direct personal association with the event. This process has been useful in identifying, clarifying and validating lessons learned, as well as conceptualizing and integrating these lessons into a meaningful framework.

Document Format
The report is organized into two parts: Part 1 lists lessons learned, in keeping with the format of the report submitted to the VTRP. Part 2 offers recommendations for intervention in cases of mass casualty, expanding and reconfiguring the information presented to the VTRP.

In Part 1, content is organized into themes, which are identified as lessons. Specific comments are listed as discrete units of information (in contrast to paragraph style) to facilitate additional comment. Part 2 is an extension of the lessons learned, incorporating action elements; it is intended as an intervention manual.

Part 1: Lessons Learned
Those that we learned (and those that we learned we needed to know more about)

Introduction
The most compelling and most important lessons learned pertain to the earliest phase of the crisis, that is, to the events of the first few hours and decisions made in response to these events. The absence of an established set of professional guidelines for intervention in the earliest moments of the crisis, in conjunction with the urgency of the moment, presented a formidable challenge

to the first psychological responders on the scene. In retrospect, the effective decisions appear to have blended pragmatism with fundamental principles from the science and practice of psychology.

In contrast, the delivery of crisis intervention counseling services after the first day, albeit challenging, was both more straightforward and more congruent with established knowledge and methods in mental health practice.

The lessons identified draw on the expertise of the mental health professional both as psychotherapist and as psychologically sophisticated observer of human behavior.

Lesson 1: Hospital as Sanctuary/Safe Haven
Regaining emotional equilibrium begins with finding a safe place

Impression
MRH was in the ideal position to provide aid and comfort to the victims (direct and indirect) of the casualty, and was wise to do so – creating a sense of sanctuary at a time when it was sorely needed.

Analysis
In the immediate aftermath of the shootings, the VT campus was closed down and the information center (Inn at Virginia Tech) not yet operational.

Students were temporarily displaced from familiar places and people, and from the VT campus and its leaders – and in this sense, were to an extent, psychologically homeless. The students and loved ones of those killed and injured (or those feared killed or injured) were distraught and in search of support and guidance.

There was a strong need for sanctuary – that is, a place to be that offered security, as well as access to loved ones and information about them.

The strategic choice by MRH to offer a place to be for students and loved ones within the hospital provided a sanctuary. MRH provided a comfortable place for loved ones of those killed and injured (or feared killed and injured) within a segregated section of the hospital with access to comfort facilities, food, et cetera. It also provided information about loved ones and expedited timely visitation.

The role of sanctuary fits the broader mission of a health care facility: providing aid and comfort to those in medical need. While those killed and injured are the direct victims of trauma, their loved ones are indirect victims – and at high risk for immediate and subsequent health problems. Timely supportive intervention in response to trauma is likely to diminish its long-term impact on these indirect victims.

It would have been reasonable, and much simpler, to operate with the more typical and more narrowly defined mission of a hospital – to provide services only to those with bona fide and relatively urgent medical needs.

Mass casualty scenarios typically call for a narrowing of the hospital medical mission, in the sense that less-urgent medical care often is denied (e.g., canceling elective interventions and discharging non-critical patients from the hospital). Thus providing sanctuary runs contrary to this well-established principle of response to mass casualty.

Still, from a pragmatic perspective, the hospital is in an ideal position to provide sanctuary in that it provides access to loved

ones and information about them. In addition, hospital staff are health care professionals whose duties implicitly entail providing aid and comfort to the sick.

In the immediate aftermath of the casualty there is a convergence of law enforcement and other support services providing a nexus of information and human resources. This access to information renders the hospital an ideal setting to provide support and guidance.

Comment on the Role of the Hospital

The confidence of a community in its institutions contributes to the perceived quality of life of a community. Institutions will define themselves in times of crisis.

A hospital will define itself in a time of medical crisis by meeting the perceived needs of the community – independent of whether it meets an objective set of standards or regulations.

The hospital's response to the casualty served the community well.

Lesson 2: Information as Aid and Comfort

In times of chaos, information is precious

Impression

The desire for and apparent need for information in times of crisis is profound. To provide information in a sensible way is to provide support and guidance, and thus facilitate coping with trauma.

Analysis

In times of community crisis, information is sought after by different constituent groups (e.g., public safety, medical, media, loved

ones of victims) for different, and sometimes conflicting purposes.

For each of these constituent groups, information is empowering.

The need for information about loved ones in a time of crisis is profound.

The information-seeking behavior of those who suspect or fear that loved ones are dead or injured is characterized by intensity, urgency, and sometimes desperation.

Accurate information brings order out of chaos, and allows those involved to move forward--to do what needs to be done next, as determined by the status of loved ones.

Accurate information will short-circuit generalized worst-case scenario fears (e.g., "there are still gunmen on the loose"; "a loved one is injured," et cetera.) and help restore a sense of order.

Accurate information will bring relief to those whose loved ones are in good hands.

Accurate information allows the loved ones of those that have died to begin the grieving process.

In the absence of information, a careful and patient explanation of why information is not available is useful. This appears to convey a meta-message that the needs of loved ones are being recognized, and that effort is being made to meet these needs. This contributes to a sense of sanctuary.

Loved ones seek information in detail beyond that which has apparent logistic value, as if the details of "How, What, When and Where" provide some sense of connection to those otherwise feeling a sense of separation.

In the absence of legitimate information, other information will fill the void, most likely via rumor or the media.

Other information available (either by media or rumor), is far more likely to be inaccurate, and delivered in a way that is insensitive, countertherapeutic or even traumatizing.

Lessons from Hurricane Katrina
Lessons learned from the response to Hurricane Katrina indicate the importance of effective information management. Of the "twelve key failures" (Gheytanci et al., 2007), two were clearly information related – "lack of efficient communication" and "rumor and chaos."

The report on Katrina reinforced our recognition of the potentially destructive nature of rumor and misinformation, noting *"The possibility for unnecessary, deeply disruptive secondary chaos is a real threat in catastrophic disasters"* (p. 124).

Information as Dilemma
In this crisis, three distinct information networks were operating: the official information network managed by public safety and medical responders; the media; and an informal network largely composed of loved ones of those feared killed and injured - a "family and friend" network. The "family and friend" network assimilated the limited information available from the official network, the copious information available through the media, and piecemeal information gathered from personal networks (largely via person-to-person contacts within established "family and friend" networks).

The media and the "family and friend" network are both susceptible to rumor, and hence to the spread of inaccurate information, and suffer varied problems as a consequence.

The "family and friend" network is the first line of support and coping. It is trust-driven and well intentioned, and delivers specific information directly to those most immediately in need. As such it is a legitimate network, in need of and benefiting from timely, accurate information. The relative balance of information, from official sources and from the media, influences both the accuracy and the efficacy of the "family and friend" network.

The more information received from the official network relative to that from the media, the better the network. Official networks have better access to and a vested interest in presenting information accurately and in a way that considers the wellbeing of the citizenry.

However, varied laws and policies, in addition to other practical constraints (e.g., related criminal investigations, the need to operate by a high standard of accuracy) limit the ability of the official network to release information – even as a void in official information creates susceptibility to rumor and chaos. Restrictions on the release of information are a detriment to the relief effort in some ways and thus inadvertently contribute to suffering.

A health care provider with access to critical information regarding patient status (e.g., knowledge of the death of a loved one) faces a dilemma. Not providing this information feels unethical and countertherapeutic, while providing such information may be in conflict with privacy laws.

This dilemma is accentuated by awareness that rumor and media will fill the void with

information that is likely to be less accurate, and less likely to be delivered in a way that is sensitive to the needs of those experiencing significant personal loss.

The Patient Manifest List
The following describes actions taken to provide information to loved ones in the spirit of aid and comfort

In response to the need to notify family and friends, a list was developed that included all hospital patients admitted to MRH in relation to the casualty. This information was distributed in accord with hospital policy (hospital privacy practices, first right of parental/next of kin notification, etc.).

It became apparent that MRH was at the center of the network of medical service delivery, and thus the single agency with the best access to information about those (killed and injured) who had reached medical facilities.

In recognition of the void in information about those killed and injured (that is, the absence of a central information authority), and out of respect for the emotionally urgent need for information experienced by loved ones of those known, suspected or feared to be killed or injured, this list was extended to include those known to be triaged to other hospital facilities.

Providing information to loved ones enabled them to expedite contact with those injured by identifying their locations. Doubt about the appropriateness of the release of information was balanced by the realization that expediting contact with loved ones might provide an opportunity for a deathbed visit; an opportunity that might otherwise be lost. As hours passed, many that were feared or suspected lost were found to be safe and progressively fewer remained unidentified.

By late afternoon, the patient manifest list, and the varied (formal and informal) information networks converged in an unanticipated way–it became apparent that those few whose whereabouts remained unknown and who were not on the patient manifest list were likely to be among the deceased.

Comment on Information Disclosure
Various policies and guidelines that govern the release of information by health care providers are problematically restrictive for the mass trauma setting.

We pose the question: In the face of great need for information, are HIPAA laws an obstacle to the management of crises, in general, and to effective psychological intervention, in particular?

Commentary on the Role of Information
Commentary on the Role of Information as Aid and Comfort: Matthews

From: *Matthews, J. R. (2007). A Louisiana psychologist's experience with Hurricanes Katrina and Rita. Psychological Services, 4(4), 323-328.*

Emphasizes the value of informal, personally constructed information networks – typically via phone and Internet – in providing information as aid and comfort in a uniquely useful (i.e., person-specific) way, in contrast to formal media networks which focused on urban centers or otherwise provided more broad-brush coverage.

> *When we were evacuated, we used our cell phones to make regular calls to our neighbors who had left shortly before we did. We shared information about the storm, hotels,*

gas stations with short lines, and generally provided a level of human contact during the stress of heavy traffic and concern about the storm. Most of the media coverage seemed to center on the French Quarter and center of the city. Those of us who lived in other areas found it quite difficult to get any sense of what might have happened to our homes. (p. 324)

Commentary on the Role of Information – Need and Challenges: VT Panel Report

From: *Virginia Tech Review Panel (2007, August). Mass Shootings at Virginia Tech: April 16, 2007. Report of the Review Panel presented to Governor Kaine, Commonwealth of Virginia.*

Throughout the report reference is made to the importance of timely and accurate information presented in a sensitive manner – and to the varied complex issues that render this task so challenging.

Parents, spouses, faculty, students, and staff scrambled for information that would confirm their loved ones were safe. They attempted to contact the university, hospitals, local police departments and media outlets, in an attempt to obtain the latest information. Chaos and confusion reigned throughout the campus in the immediate aftermath. (p.136)

Mass fatality events, especially where a crime is involved, present enormous challenges with regard to public information, victim assistance, and medical examiner's office operations. Time is critical in putting an effective response into

motion. Discussions with the family members of the deceased victims and the survivors and their family members revealed how critical it is to address the needs of those most closely related to victims with rapid and effective victim services and an organized family assistance center with carefully controlled information management. Family members of homicide victims struggle with two distinct processes: the grief associated with the loss of a loved one and the wounding of the spirit created by the trauma. Together they impose the tremendous burden of a complicated grieving process. (pp. 145-146)

Commentary on Privacy Laws: VT Panel Report

From: *Virginia Tech Review Panel (2007, August). Mass Shootings at Virginia Tech: April 16, 2007. Report of the Review Panel presented to Governor Kaine, Commonwealth of Virginia.*

Substantial attention is directed to privacy laws, highlighting their complexity and opacity. Chapter V of the original report is devoted exclusively to privacy laws with extensive additional information presented in Appendixes G and I.

Information privacy laws governing mental health, law enforcement, and educational records and information revealed widespread lack of understanding, conflicting practice, and laws that were poorly designed to accomplish their goals. (p. 63)

The Panel also offered the following formal recommendation:

"V-2 Privacy Laws should be revised to include 'safe harbor' provisions."

The provisions should insulate a person or organization from liability (or loss of funding) for making a disclosure with a good faith belief that disclosure was necessary to protect the health, safety, or welfare of the persons involved or members of the general public. (p. 68)

Lesson 3: Ownership and Partnerships

Ownership and partnerships are central elements in the community response to trauma

Impression

Ownership is a foundational element of community response to trauma. In mass casualties, outside assistance is essential. By forming partnerships with community responders, outsiders enhance the effectiveness of the community's response. Professional rivalries (which may undermine trauma response) are remedied by partnerships.

Analysis

The community needs to own the trauma response, to manage the trauma, and to recover from the trauma.

In a mass casualty, the community will need the assistance of those outside the community (outsiders) to meet its needs.

These needs include three elements: people power (substantial numbers of specialists to meet expanded needs); special expertise, where this is lacking; and support for caregivers.

The need for assistance gives rise to the need for partnerships.

Partnerships are defined as alliances among those who function in a similar role (e.g., counselors and ministers), or those whose roles are interlocking or overlapping (e.g., public safety responders, hospital medical staff and HR administrators).

Not all efforts to help are wanted or beneficial; that is, helpers do not necessarily become partners.

Those outsiders who recognized the need for ownership by the community were more readily accepted as partners, and in turn better served the community.

The importance of ownership by the community was well recognized by sophisticated outsiders (e.g., HCA Hospital Chaplaincy, Trauma Relief, Billy Graham Crusade).

Lessons from Hurricane Katrina

Lessons learned from response to Hurricane Katrina bear heavily on issues of partnership and ownership. Of the "twelve key failures" (Gheytanci et al., 2007), five relate to ownership and partnership: "poor coordination plans"; "ambiguous authority relationships"; "who should be in charge?"; "ambiguous training standards"; and "personal and community preparedness."

Territoriality

Professional and personal rivalries are found in day-to-day practice settings and in mass casualty settings. The emotional intensity of the mass casualty environment may accentuate these rivalries.

Partnership is the remedy to rivalry.

The need for leadership (and the possibility of a void in leadership) in the mass casualty environment may also accentuate these rivalries.

Effective leadership respects the ownership of the community, forges partnerships, and circumvents rivalries.

Opportunism

Professionals in the mental health fields and the clergy have training and ethical codes that guide their behavior, and place priority on the wellbeing of clients. The absence of professional training not only raises the possibility of ineffective intervention, but also of ethical violations that could be detrimental to victims.

There is concern that organizations or individuals may use critical incidents in an opportunistic way to foster pre-established agendas, essentially prioritizing their agenda ahead of the well-being of the victims – for example, consider the possibility that media would hire people defined in some way as counselors simply to gain access to incidents and to gain an advantage over their media competitors.

Comments on Professional Role and Function

Because of the time urgency of crisis intervention and the need to blend responders from varied settings into teams, it is essential that professional titles clearly convey a defined professional role.

Access by mental health providers/counselors to the facility should be limited to verifiably credentialed individuals. This function probably should be overseen by a health care professional.

While resources consisting of outside support and assistance may be available and needed, utilizing such resources efficiently is a substantial challenge logistically.

For practical and logistical reasons, there is an optimal number of service providers to compose an intervention team. It is possible that there are more providers available than are needed, or if needed, more providers available than can be effectively integrated into the response team.

Lack of understanding of an individual's skill set clearly is an obstacle to efficient utilization of resources.

"Chaplain" is a broadly defined but poorly understood term. Many assume inaccurately that it is synonymous with ordained clergy.

There is a similar concern with the term "counselor"– which may or may not imply a professionally trained and licensed mental health practitioner.

Commentary on the Role and Function of Chaplains: Hargrave

Rickey Hargrave of the International Conference of Police Chaplains was solicited as a reviewer and offers the following commentary:

> *The International Conference of Police Chaplains (ICPC) is writing a definition for Chaplain that does NOT include what the Chaplain does but specifies WHO the Chaplain is. Following the bombing of the Murrah Building in Oklahoma City, where Chaplains were used in many areas and received a lot of high-profile publicity, groups sprang up using the term "Chaplain" to gain access to incident scenes. As part of the incident credentialing processes we would mandate questions be asked about actual clergy status on*

the part of Chaplains. Qualifications should include, among other things, ordination/ commissioning, ecclesiastical endorsement, and specific theological training. Inquiry as to past involvement in similar critical incidents should be made and evaluated. While it is true there are "lay" Chaplains serving in various capacities, in critical incidents the higher standard must be maintained.

Commentary on Optimal Utilization of Psychological Resources: Sellars

Dr Bruce Sellars, VT alumnus and Roanoke-based Clinical Psychologist, was one of many who offered professional help that went unutilized.

As a psychologist who participated in the emergency response effort during the recent Virginia Tech tragedy, the immediate reaction observed in mental health professionals (and likely the citizens at large) is one of wanting to help in some way. As such, a contingent of mental health professionals went to the Tech campus from Roanoke upon hearing from two other psychologists on site that additional help was needed. We were directed to the Red Cross headquarters where we were politely informed no additional assistance was needed. We were not trained ARC volunteers but it seemed that part of future disaster plans should try to account for the willing outpouring of the citizenry to provide immediate assistance. A disaster in a community also affects those living in the community and glued to televisions or Internet sites. It seems hard to believe that certain individuals with specific training

should be sent packing. While it is appreciated that the disaster site needs to be made secure and controlled, provisions for local volunteers with certain skill sets need to be included in future disaster plans.

Commentary on Optimal Utilization of Psychological Resources: Matthews

From: *Matthews, J. R. (2007). A Louisiana psychologist's experience with Hurricanes Katrina and Rita. Psychological Services, 4(4), 323-328.*

Our profession needs to have better immediate access to victims…the process I saw in which licensed psychologists were required to go to the capital and complete a range of forms before being allowed to work in disaster centers not only slowed the provision of services, but also may have deterred some from volunteering. Such delays just compound the sense of abandonment felt by many victims. (p.327)

Commentary on the Need for Screening of Mental Health Volunteers: VT Panel Report

From: *Virginia Tech Review Panel (2007, August). Mass Shootings at Virginia Tech: April 16, 2007. Report of the Review Panel presented to Governor Kaine, Commonwealth of Virginia.*

As occurs during many disasters, some special interest groups with less than altruistic intentions arrived in numbers and simply took advantage of the situation to promote their particular cause. One group wore T-shirts to give the impression they were bona fide counselors when their main goal was

to proselytize. Others wanted to make a statement for or against a particular political position. Legitimate resources can be a great asset if they can be identified and directed appropriately. (p.145)

Lesson 4: Visual Image as Therapeutic Agent

The visual image is like a psychological scalpel, cutting deeply, with the power to wound or to heal

Impression

Imagery is a potent element in the experience of trauma, influencing the initiation and maintenance of symptoms, and also serving a critical role in therapeutic intervention.

Imagery can be positive or negative, therapeutic or countertherapeutic.

Analysis

A brief overview of the role of imagery in trauma follows, one that is generally consistent with established professional knowledge and practice.

Therapeutic assessment of trauma-related imagery and memory offers insight into psychological status.

The intrusive recollection, often dominated by aversive visual imagery, is a hallmark of traumatic stress disorders.

The intrusive negative image is a gateway to the visceral component of traumatic emotions.

Negative images can freeze the person at the moment in time when fear and anxiety are at a peak – and as such are past-centered.

The best countermeasure to traumatic imagery is positive imagery.

Positive, present-centered images reinforce the safety and the reality of the moment.

It was hypothesized that specific positive images of recovery would mitigate the negative imagery associated with exposure to the trauma – for victims as well as for medical and public safety responders.

Witnessing the survivors' recovery and return to health was hypothesized to be a countermeasure to the traumatic imagery and memories experienced by first responders and medical providers.

Visits to hospitalized survivors were offered to medical providers and first responders based on the hypothesis that this would reinforce the positive outcome of the medical and rescue work, and serve as a countermeasure to traumatic reactions.

The visits by ER, OR, Rescue and Police to hospital survivors were clearly mutually beneficial (to survivors and to providers/rescuers) by all measures of self-report and observation.

At its best, the impact of the visit was transformative for providers/rescuers.

It appears that the positive image of the survivors recovering and doing well provided a potent, present-centered countermeasure to the past-centered image of trauma.

Though this intervention appears to be counter to standard hospital practice, it should be considered in future mass casualty situations.

Comment on the Airing of the Killer's Video

Exposure to negative, countertherapeutic imagery is typically a direct and unavoidable consequence of being present at traumatic events.

Exposure to traumatic imagery after the fact is discretionary, and may either facilitate recovery or exacerbate the impact of the trauma on victims.

The management of imagery exposure according to a therapeutic plan is an inherent element in psychotherapy for trauma.

Unwanted or unanticipated exposure to traumatic imagery by victims, such as that provided by the media, can be countertherapeutic and worsen the impact of trauma.

The airing of the killer's video raises a series of compelling questions:

> *-Did airing of the killer's video worsen the impact of the trauma on its victims?*
>
> *-Was airing of the killer's video a collaboration with the killer? That is, did this foster the killer's agenda by continuing to inflict pain and suffering even after his death, and by providing him the notoriety that was a part of his motivation for killing?*
>
> *-Did airing of the video encourage future mass murderers with a similar agenda?*

Lesson 5: Media as Obstacle
Many seemed far angrier with some of the media than at the killer

Impression
Media presence was a conspicuous and pervasive element of the casualty; one that was all too often counterproductive and sometimes inflammatory. As such, the impact of the media demands scrutiny, and calls for development of a set of management strategies to optimize the beneficial aspects of media coverage and to diminish the potential negative impact.

The intensity, persistence and resourcefulness with which the media seek information suggest that they recognize that information is power.

The commentary that follows focuses primarily on problems encountered with the media and how such problems may be avoided. The behavior of the national and international broadcast media was seen as most problematic, with the local media far less so.

Analysis
Restricting access of media to the hospital setting is well advised.

The primary focus of available resources should be on the victims of trauma (direct and indirect). The combination of the sheer volume of tasks necessary to respond to casualty, in conjunction with time urgency and emotional intensity, places a maximal load on staff time and resources.

Efforts by media to circumvent restrictions on access to the hospital diverted resources from service delivery.

In response to casualty, extra hands are needed with staff functioning outside of customary roles. Those who were needed to prevent inappropriate media access were diverted from other potential helping roles.

Presence of media in the hospital setting creates a high potential for contact that is

unwanted, troublingly intrusive and coun-tertherapeutic – which would potentially un-dermine the sense of hospital as sanctuary.

There was a shared perception of some in the media as transparently self-serving, in-sensitive and shameless. There was a widely voiced hope that media behavior was so ex-tremely disruptive and counterproductive at this event that it would trigger constructive self-scrutiny aimed at finding a better way to respond to similar crises.

Although not widely publicized, the cover-age did trigger commentary within media circles on ethical management of psycho-logical crises, with specific reference to the VT shootings. For example, see commentary from the Poynter Institute in St Petersburg, Florida (www.poynter.org).

Because of the pervasive and influential im-pact of media presence, mental health pro-viders need a set of media-related intervention strategies, specific to mass casualty situations, to complement estab-lished crisis intervention methods.

Both active (e.g., giving an interview) and passive (e.g., watching television program-ming) interactions merit consideration as part of media coping interventions.

Mental health providers need to be prepared to address several issues: their own personal behavior with the media; the varying desire of the victims to either interact with or avoid interactions with the media; and milieu-vio-lating behaviors on the part of the media. Simultaneously, local responders should be sensitive to the need created by psychologi-cal crisis to educate the general public about psychological issues, and the potential long-term benefits this may provide.

Because of the potentially negative impact of media involvement, the unfamiliarity of many mental health providers with media interaction and the vulnerability of the vic-tims, a relatively cautious and protective strategy is suggested.

Specifically counselors should be to alert to media behavior characterized by insensitiv-ity, entitlement and manipulation.

Critique of Media Commentary
Sam Singer of the Sam Singer Group, solic-ited as a reviewer of the report to VT Panel, offers the following commentary on media role and function.

> *The media analysis included in the Report to Virginia Tech Review Panel illustrates the critical need for psychological crisis counseling pro-fessionals to abide by a comprehen-sive media policy during a mass casualty event. The analysis, while essentially accurate, fails to fully grasp the complexity of the media landscape, even as it acknowledges that the local press behaved differ-ently than the so-called national me-dia.*

> *It is important to understand the mo-tivations of reporters and editors during times of extreme crisis. More often than not, the information avail-able immediately following a mass causality event is sparse and sketchy. Because of the competitive dynamics engendered by the 24-hour cable networks and the Internet news sites, this information, sparse or inaccu-rate as it may be, is repeated and speculated upon ad nauseam. The pressure to report new information grows ever more intense for report-ers on the ground.*

Typically, most reporters from national outlets are unfamiliar with the community in which the crime/disaster has occurred. While local reporters are able to work their existing sources and information networks, out-of-town media personnel are, at least at first, almost totally reliant on official spokespeople from hospitals, law enforcement, schools, government, et cetera. These spokespeople represent organizations that are trying to protect the public, including primary and secondary victims, and are therefore almost immediately in conflict with reporters struggling to unearth new details.

The hyper-competitive nature of the 24-hour media, the lack of good information following a major crime/disaster and the understandable reluctance on the part of official spokespeople to divulge too many details too soon, results in reporters searching for any avenue of information they can find. These avenues often include eyewitnesses, victims and victims' families and friends, and sources who are not authorized by their organizations to speak to the media.

While this search for information is often aggressive, insensitive, unsettling, frenzied and problematic, it is not the result of reporters' sense of "narcissistic entitlement." It is an understandable, if extremely troubling, result of a combination of factors that often surround a mass casualty event. Understanding these factors better will help us better craft policies and guidelines to protect

victims and their friends and families.

Lesson 6: Making Sense of the Shooter, Cho
How many victims…32 or 33?

Impression
Making sense of Cho is a central question to coping with this tragedy and avoiding future tragedies.

While a detailed treatment of the topic is beyond the scope of this report, observations and comments that arose during the lessons-learned exercise are detailed below.

Analysis
"Is Cho a victim too?"

On the impromptu VT Drill Field Memorial, there were 33 spots--32 named for the victims; and 1 that was unnamed with the message – "We are still praying for you."

At the VT memorial service, a bell was rung 32 times for the victims; At the MRH hospital memorial service, a bell was rung 33 times– which is the right number?

There were ample local anecdotal reports of backlash toward Asian ethnic groups, as well as shame (and fear of backlash) from within Asian ethnic groups.

Similarly, use of the phrase, "Cho qualities," has been noted. Is this dangerous in its over-inclusiveness and intrusiveness? Does it stigmatize those who choose to remain to themselves? Does it further disenfranchise the disenfranchised?

Scapegoating and racial stereotyping would seem to extend the impact of trauma.

Treatment providers should be sensitive to the impact of this effect on clients presenting in therapy, and should work to counter this effect in the community.

Is there a lesson from the Amish (following the mass casualty in Pennsylvania) that forgiveness will help bring peace to the grieving?

Lesson 7: Being a Caregiver and Caring for the Caregivers
With great need comes the opportunity to do great good – and to simultaneously experience great sadness and great satisfaction – and great conflict about this awkward mix of sadness and satisfaction

Impression
A culture of acceptance of psychological intervention, and of psychological distress in response to trauma, in conjunction with readiness to utilize mental health services will facilitate long-term recovery.

Analysis
The long-term impact of trauma on medical, rescue and police is well documented.

Psychological intervention with public safety responders after trauma is emerging as a standard practice.

The efficacy of CISD (Critical Incident Stress Debriefing) in general and the Mitchell Model in particular have recently come into question, seemingly because the limitations of the model render it neither necessary nor sufficient for the full range of interventions appropriate for trauma responders.

However, the importance of some form of critical incident stress management, as a complement to tactical debriefings, is recognized. Alternatives to the pioneering Mitchell Model are available. For example, Psychological First Aid (Brymer et al, 2006) is an approach advocated by both the National Child Traumatic Stress Network (www.nctsn.org) and the National Center for PTSD (www.ncptsd.va.gov).

Implicit in the above commentary is a question as to the best way to implement crisis-counseling services for hospital staff in the immediate-post-trauma time period.

At MRH, a prevailing attitude regarding crisis intervention arose that was characterized by these elements: general acceptance (and the absence of stigma for those participating); readiness to adjust work schedules to accommodate those requesting services; encouragement for participation from peers and supervisors (with occasional mandated intervention at the discretion of supervisors); and an environment of peer support.

This approach led to a sensible balance between the expectation that counseling would be sought when needed, and respect for individual choice.

Interventions with hospital staff peaked on Day 4 in keeping with Mitchell Model predictions of a peak in need at 72 hours post-incident.

Hospital staff, like many others, felt that their sense of community as a safe haven had been shattered. During debriefings, staff described changes in behavior that reflected fear, uncertainty, and the need to take protective measures (e.g., more-ready access to firearms; development of protective strategies in case of being accosted). When such conspicuous changes are apparent it is likely that the same underlying behavior will be manifested in other more subtle ways.

For all the stressors associated with mass casualty work, it is also a potential time of fulfillment and validation as a professional.

However, caregiver guilt is a potential issue of concern among those who were unable to provide services or who were not satisfied with their performance during the casualty.

Part 2: Psychological Intervention In Mass Casualty:
Recommendations From Lessons Learned

Introduction
Effective intervention rests on flexibility and spontaneity

Impression
Mental health providers have a unique and critical role in crisis intervention. The form, style and purpose of intervention varies according to the time lapsed since the critical incident. There are 3 distinct time frames for service delivery: the first hours, the first days, and the first years. The effectiveness of psychological intervention is linked to broad-based thinking about human behavior, readiness to reach beyond the customs and practices of psychotherapy, sensitivity to the broad reach of trauma in a mass casualty, and willingness to forge partnerships with other providers.

The intervention recommendations presented are specifically focused on the VT Mass Casualty, but are intended to apply to other mass casualty scenarios, in particular those that occur in a college community.

Because the academic calendar of a university has a distinctive rhythm, marked by the comings and goings of students, the timing of any casualty is likely to influence the nature of the impact and the manner of response. Because April 16 is in the latter part of the semester calendar, the intervention needed to address both the reasonable readiness to take exams and the anticipated student exodus at the end of the semester.

Commentary on the Role of Psychology in Disasters: Gheytanci et. al.

From: *Gheytanci et al. (2000)* on lessons leaned from Hurricane Katrina:

> *Unfortunately, psychology as a discipline continues to view its role in disasters as narrowly focused on the final phase of these events, with much of the research, policy, and practice emphasis placed on treating trauma, rather than its prevention. Instead, a comprehensive approach aimed at embedding psychological science throughout the five phases of disasters – planning, crisis communication, response, relief, and recovery – is needed. Such a stance would view psychology as a core component of a broad, interdisciplinary effort to mitigate disasters within a public health framework. (p. 127)*

Comments on Role and Scope

Identifying Role
Recommendations to mental health providers for identifying an effective role follow:

-Think broadly regarding role – provide support and relief from stress and suffering.

-Think broadly regarding scope of service – provide relief from stress and suffering for patients and families and friends and staff and others deemed appropriate.

-Begin with the basics – use psychological knowledge and skills to observe and assess as a means of determining role and scope.

-Be flexible and spontaneous – let go of implicit elements of structure in psychotherapy (scheduling, session length, record-keeping, controlled environment).

-Implicit in these suggestions is the need to NOT be bounded by conventional customs and practices of psychotherapy.

-Implicit in these suggestions is the importance of contributing to a pervasive therapeutic milieu.

Partnerships
Forging partnership is essential to effective service delivery.

Partnerships need to be developed both with those who do, more or less, what mental health providers do and those whose help is needed for mental health providers to do what they need to do.

Mental health providers accustomed to functioning in a general medical environment will naturally develop partnerships with medical staff.

In a public safety emergency, such as a mass casualty, other partners (albeit less familiar ones) are essential to optimal functioning, including human resource (HR) staff, chaplains, and police.

Coordinated efforts among natural partners are essential to optimal functioning in a mass casualty situation.

This can be complicated by the need for a large number of providers to function in concert.

HR and Psychology
HR staff function as practical facilitators for psychological service delivery because of familiarity with the people and the setting,

and the ability to effect logistics (e.g., access, facilities). HR staff optimally blend organizational abilities and psychological mindedness.

Chaplaincy and Psychology
There is a strong common ground, especially in times of great loss.

At MRH, chaplains and psychologists were able to work effectively under the same umbrella.

This coordinated effort maximized synergy of service and minimized potential problems with overlapping roles.

Police and Psychology
The less controlled a scene, the greater the likelihood police will be needed and (hopefully) present.

Police are trained in the assessment and management of human behavior under duress, and have evolved into first responders for those suffering psychological crises.

Police help to ensure safety, and can provide ready access to other public safety resources.

Circles of Trauma
The impact of mass trauma is far-reaching.

"Circles of trauma" defines both the scope of impact and the scope of service.

While the greatest impact is likely to be felt by those most directly affected, the effects of trauma ripple outward through the community to include those killed and injured, their loved ones, public safety and medical responders, and in a collective sense, the community as a whole.

While the primary focus is by necessity on those most directly affected, the reach of trauma is deep, and those in need of service may be easily overlooked.

For example, a student electing to return home after the casualty died in a motor vehicle accident. Should this student be included in the casualty count and memorialized as the others have been?

The counselors from the community providing services are themselves part of the circle of trauma. As a consequence, they should be alert to their personal reactions and emotions, and take care to prevent these from taking priority over those of the client, or otherwise having a countertherapeutic effect.

Strategies for Intervention

The manner and style of psychological intervention is a direct function of the time lapsed since the triggering event.

Strategies for intervention are thus organized according to time frame.

Three time frames are identified: The first hours; the first days; and the first years.

Most mental health interventions in response to trauma come after the fact – that is, at some point beyond the first days – and often months, years or even decades later. The protracted effects of exposure to trauma are well detailed in the psychological literature, as are methods for psychological intervention. Because this time frame is outside the scope of acute response, it will not be dealt with in detail in this report.

Intervention during the "first days" time frame is increasingly well understood but not yet a part of mainstream training for mental health professionals. It is in this pe-

riod that the prototypical public safety-oriented crisis intervention takes place. Although clearly in a developmental stage, there are a relatively well-established set of expectations, strategies and practices for intervention in this time frame. Many of the lessons learned in the hospital are most immediately and directly relevant to intervention provided in the first days.

The role of psychological intervention during the "first hours" time frame is not well explored, not well understood, and seldom even considered as a component of initial response. The key question is: "What, if any, is the role for the mental health professional in this setting?" Offering analysis and recommendations regarding the role of psychologists is the focus of the section on the first hours.

Discussion of the time frames proceeds in reverse order, from the most familiar and best understood to the least well understood.

Two topics – managing the media and the impact of visual imagery – are treated in detail, and appear after the discussion of intervention that is oriented around time frame.

Intervention by Time Frame

Timeline

As the crisis unfolded, the role of the mental health provider changed. The initial hours were a time of uncertainty, with Day 1 primarily focused on managing people in a general sense (rather than providing counseling per se) - with attention to logistics and information sharing, reacting to the media, and dealing with the shock of the event. By Day 2, much of the information about the tragedy was known, bringing a shift to more of a crisis counseling role. By Day 4, those affected were beginning to return to some

semblance of a normal routine. This coincided with a peak in apparent distress in medical staff, and saw the greatest amount of CISM type intervention. Hospital function and overall crisis service delivery tapered to near baseline by Day 7.

Intervention Compared and Contrasted in Relation to Time Frame

From an operational or logistics perspective, interventions provided during each of the time frames have a distinct look and feel.

As psychological intervention moves from the traditional office setting to the public safety setting, the practice of psychotherapy is progressively deconstructed.

There are certain customs and practices that are implicit in the everyday function of psychotherapy, and that create its distinct look and feel. Intervention is typically for diagnosable mental disorders, appointments are scheduled in advance, personal information is verified and substantial amounts of medically and legally mandated paperwork are completed, clients are staged in a waiting room that is typically quiet and sedate, intervention is on a time clock and is conducted behind closed doors to maximize privacy, encounters are carefully documented and billing records are generated.

Interventions in the public safety setting are distinctively different, as the familiar therapeutic environment is deconstructed. Intervention is less likely to treat a diagnosable disorder than to prevent one. Standards of documentation and privacy are distinctively different, as are the strategies underlying the use of this information. The setting and timing of service delivery are variable and a reflection of the immediate circumstances.

Intervention in the public safety setting calls upon mental health providers to step outside the familiar, into a setting that may be outside their comfort zone, and that demands flexibility and resourcefulness to adapt effectively.

The First Years – Long-term Impact

"The First Years" refers to the long-term impact of trauma. The long-term impact of trauma, including delayed onset of psychological disorders, has long been receiving significant attention.

Acute stress disorder refers to symptoms that are contiguous with the event but that extend beyond the first days. Post-traumatic stress disorder refers to delayed onset of symptoms or to continuous disruptive symptom extending beyond the first months of trauma.

Attention to stress disorders is historically driven by concerns for veterans returning from combat (reaching back to the Vietnam era).

More recently, the long-term impact of critical incident stress has received attention in the public safety setting, driven by awareness of the negative impact of exposure to trauma on public safety responders as demonstrated in performance, as well as retention.

However, methods for managing the long-term consequences – and specifically for preventing post-traumatic disorders or subclinical traumatic responses – are not well understood.

Rendering effective treatment is further complicated by the possibility of delayed onset of symptoms and because the link between trauma and symptoms may not be apparent.

Addressing long-term impact should incorporate a direct approach to management of acute stress disorder, and a preventive approach to post-traumatic response. Potential long-term issues specific to this casualty include:

-survivor guilt;

-over-compensation by men who escaped and left women behind; and,

-backlash toward Asian ethnic groups and perceived loners, whether direct and conspicuous or subtle.

The First Days – Crisis Intervention and CISM

The "first days" time frame begins when the event is controlled (and no longer an active emergency) – metaphorically, when the dust has settled. Once the sense of imminent danger has passed, psychological intervention can proceed without elevated concern for the safety of those involved in service delivery, or concern that the presence of mental health providers will complicate the delivery of other public safety services.

Responders may use established models of service delivery: crisis intervention for victims (direct and indirect), and critical incident stress management for responders.

Crisis Intervention is the general model for intervention with the victims and loved ones. Because this is considered a clinical intervention, its form and style are similar to psychotherapy (mental health service delivery to those with diagnosable disorders). The specific focus is on stabilization of psychological status. Time urgency marks it as distinct among psychotherapeutic interventions.

Critical Incident Stress Management (CISM) is a general model for intervention with public safety professionals. This generally demands special training that is not routinely provided as part of graduate programs in mental health. While it bears many similarities with crisis intervention, it is not considered psychotherapy, is not usually billed to insurance carriers, and is not usually documented according to prevailing clinical standards. It is considered preventive.

While crisis intervention should be in the repertoire of all mental health providers, critical incident stress management may be unfamiliar. However, increasing numbers of mental health and public safety professionals are trained in approaches to critical incident stress management.

Special considerations regarding service delivery in response to mass casualty follow:

A Model of Psychological Dynamics

A simple Loss-Threat model of psychological dynamics does not assume pathology, but does define a potential continuum of response from normal crisis reaction to pathology. The experience of loss is associated with the prototypical depressive response (e.g., sadness, grieving); threat, with the prototypical "anxious" response (e.g., restlessness, worry, fear).

A Public and Shared Experience (see Circles of Trauma, above).

Mass casualty is a community experience. The unique elements of psychological intervention with mass casualty follow from the public nature of the event and a sense of shared experience by community. In contrast, traditional psychotherapy is a distinctively private experience. The grief response reaches broadly and deeply into the community.

There are many in great need of psychological support, both from mental health professionals and from personal support networks.

While counseling interventions may directly address clients' presenting needs, counselors should also be educating those involved in the tragedy to recognize less-obvious signs of the impact of trauma. In this way, the effectiveness of natural support networks may be enhanced.

Members of the community without any direct personal loss or direct exposure to trauma may convey a collective sense of personal violation – as if the community itself had been wounded.

Issues of Responsibility and Accountability
Questions of responsibility and accountability are multifaceted. These may be personal and related to particular individuals' loss, or be more general in nature - reflecting both pragmatic and existential questions regarding public safety.

The public nature of the trauma leads to public witness of the grief response of the victims' loved ones. In some cases, loved ones may seek accountability or look to assign blame. This in turn may trigger public commentary on the issues of accountability and blame, as well as the reasonableness of the response of the loved ones' responses. Because the trauma calls attention to issues of public safety, community debate may follow in relation to pragmatic issues regarding community safety and the effectiveness of public safety agencies.

Existential questions may also arise around the question: "Why and how does such a thing come to happen?" Mental health providers are encouraged to remain within their professional roles and withhold opinions about accountability for a variety of reasons,

including limited knowledge and police and public safety policies and procedures.

High-Profile Media
Even the presence of media personnel and the abundance of national reporting about a casualty will present challenges and evoke reactions from those affected by the tragedy. Thus media related concerns are likely to arise in counseling interventions. (See Media as Obstacle, above; and Managing Media Impact, below.)

Issues may range across a broad spectrum from awkwardness with being the object of curiosity to frustration with media coverage and the commentary of pundits.

While mental health professionals are well schooled in protecting the privacy of individuals, they should be cautious in any and all interactions with the media, so they do not inadvertently violate privacy or create the perception that they may have done so.

A Collaborative Intervention Milieu
The distinct manner in which psychological services are provided is a reflection of the time urgency of the event and the need to operate within the structure of a broad-based public safety response. This meant adapting to a hospital environment and integrating efforts with other response service providers.

Adapting to the Hospital Setting
Nursing role and function offers an effective model for integrating intensive psychological services into a hospital environment. Examples include:

-routine check-ins to see if there is a need for counseling;

-staff briefing of patient status at changing shifts; and

-patient continuity in staff assignments.

Coordinating Activities with other Service Providers

There is a need to work within a complex but ambiguous organizational structure and function as a team. This requires forging partnerships and managing issues of rivalry within and across professions.

The First Hours – What is the Role for Psychology?

Psychological responders typically are not operational in the first hours.

However, it does appear that important decisions need to be made that draw on psychological principles and that have a psychological impact. That is, there are psychological interventions made in the first hours. Consequently, there is a role for psychologists in this time frame - through direct involvement, through training of other public safety responders, or both.

The Virginia Tech Panel Report identifies actions taken in the first hours that are psychologically significant, including but not limited to death notifications, and emphasizes the importance of psychologically minded actions in response to trauma.

The experience of mental health responders in the hospital setting reinforced the value of psychologically minded actions in the immediate response to the crisis.

The role for psychology in this time frame is not defined. However, there does appear to be an opportunity to expand the scope and effectiveness of public safety response to crises by bringing psychology into this arena. In recent historic context, there is clearly an expanding role for psychology in public safety including these contributions:

-pre-employment psychological screenings

-post critical incident interventions

-threat assessment

-profiling of offenders

-hostage negotiations; and

-crisis intervention training for officers.

These developments are, in turn, a reflection of an emerging sense of accountability and responsibility in the public safety setting for the psychological wellbeing of citizens.

If there is a role for mental health in the first hours then it is likely to be a natural extension of these services.

If psychological interventions are an important element in mass casualty and other community-wide trauma, then timeliness of response merits careful consideration. By way of analogy, consider the importance of timeliness of medical response to an arterial bleed or a stroke. The sooner care is provided, the better the outcome. The longer the delay between trauma and service delivery, the more significant the problem becomes, and the more complex the intervention becomes.

Timely psychological intervention is the driving concept behind CISM and the related use of debriefings and defusings. Defusings typically take place in the latter part of the first hours, as the dust is beginning to settle.

These are much less common than debriefings, which typically occur during the first days – perhaps in part because psychological responders are less readily available.

Potential Roles for Psychologists

There are varied roles the psychologist may potentially fill in guiding intervention in the first hours. The following suggestions are broadly inclusive, and meant to elicit more detailed inquiry.

Direct interventions: defusings with public safety personnel; crisis intervention with victims and their loved ones.

Consultation: indirect intervention such as providing consultation to other professionals regarding procedural decisions which have a psychologically significant impact (e.g., setting and manner of death notices), or in assessing psychological status of responders by observational methods.

Training: guidance for medical and public safety responders in the management of the psychological status of victims and their loved ones.

The physical presence of the psychologist in this setting is essential to gain understanding of psychologically relevant issues and of the operational constraints of the context in which interventions are to be delivered.

The First Hours at MRH

In the hospital environment in the first hours, multiple functions were unfolding simultaneously: providing urgent medical care; criminal investigation; and implementing the role of the hospital as sanctuary.

In this chaotic environment, medical staff and administrative personnel were compelled to make decisions in response to events driven by exigency of time and circumstance, and the absence of a clear command structure to which to defer decisions.

Psychological guidance did help inform some of these decisions. Of particular importance was balancing the emotional needs of those presenting to the hospital, with the necessity of preventing this support function from interfering with other hospital functions.

The overarching theme of psychological intervention in the first hours was creating a sense of sanctuary. In addition to initiating a formal crisis counseling service, other functions performed included:

-Providing information directly to loved ones;

-Facilitating access to information for loved ones, from varied sources (e.g., police, hospital administrators, university officials, et cetera);

-Management of staging area (e.g., structuring space to accommodate needs, providing food) while minimizing impact on other hospital functions;

-Coordinating services with Virginia Tech Counseling Center;

-Supporting University officials present at the hospital;

-Organizing of ministerial volunteers spontaneously presenting to provide aid (e.g., integrate in crisis counseling services, arranging for chaplain-directed prayer meeting);

-Discussion of media coverage and means for managing this.

The Role of Psychology in Disaster Response and Planning

Commentary on Integrating Psychology in Disaster Response and Planning: VT Panel Report

From: *Virginia Tech Review Panel (2007, August). Mass Shootings at Virginia Tech: April 16, 2007. Report of the Review Panel presented to Governor Kaine, Commonwealth of Virginia.*

The report frequently alludes to the value of a psychologically minded approach to intervention with victims and their loved ones beginning in the first hours. Specific recommendations offered by the report reinforce the participation of mental health professionals in disaster planning and response.

Recommendations

X-4 Training should be developed for FAC, law enforcement, OCME, medical and mental health professionals, and others regarding the impact of crime and appropriate intervention for victim survivors. (pp. 132-133)

X-11 The Commonwealth should amend its Emergency Operations

Plan to include an emergency support function for mass fatality operations and family assistance. The new ESF should address roles and responsibilities of the state agencies. The topics of family assistance and notification are not adequately addressed in the National Response Plan (NRP) for the federal government and the state plan that mirrors the NRP also mirrors this weakness. Virginia has an opportunity to be a national leader by reforming their EOP to this effect. (p.133)

XI-1 Emergency management plans should include a section on victim services that addresses the significant impact of homicide and other disaster-caused deaths on survivors and the role of victim service providers in the overall plan. Victim service professionals should be included in the planning, training, and execution of crisis response plans. Better guidelines need to be developed for federal and state response and support to local governments during mass fatality events. (p.146)

Commentary on the Role of Psychological Practice: Miller

From: *Miller, T. W. (2007, November). Trauma, change and psychological health in the 21st century. American Psychologist, 62(8), 887-898.*

In the American Psychological Association 2007 Award Address for "Distinguished Professional Contributions to Practice in the Public Sector," Miller suggests directions for change in the practice of psychology relevant to crisis intervention services, including modifications in health care delivery paradigms with attention to shifts in clinical populations and points of intervention.

Special Topics
The Impact of the Visual Imagery of Trauma
Visual and other imagery associated with trauma is a point of focus in assessment and intervention in each of the time frames.

Trauma and the imagery associated with it, as typically presented in clinical practice, is private. However, the public nature of the imagery associated with mass casualty adds an additional dimension of complexity, and needs to be considered in providing psychological intervention.

Managing and perhaps limiting exposure to imagery has a potential therapeutic benefit.

The potential for interventions focused specifically on management of visual imagery and traumatic recollections are discussed.

First Days
Assessment of trauma-related imagery in the first days offers a window into the psychological experience of the individual, and provides an opportunity for intervention that is timely and naturalistic.

Visit to Survivors as Intervention
In the course of conducting formal and informal assessments with medical and public safety responders during the first days, the potency of disturbing images was apparent.

An Emergency Department staff member mentioned in an informal encounter that it would be helpful to see the survivors alive, alert and recovering – but assumed this would not be possible, as it ran counter to customary hospital practices. This custom was set aside to allow the visit, which produced a positive result for the staff member and was well received by the survivors.

A member of the hospital clerical staff, who had been called upon to assist with logistics in the Emergency Department treatment areas, presented for consultation with acute distress disorder, marked by vivid disturbing dreams recalling the trauma. This staff member was also provided an opportunity to visit with the survivors, with notably positive benefit, and a rapid and significant decline in disturbing dreams.

Subsequently, a CISM style debriefing was conducted with the first medical responders to the scene, who by all standards had performed extraordinarily well, but whose memories were laden with disturbing im-

ages. A visit was arranged for them with several of the victims. The impact of this visit on the first responders (each of whom were VT students) was remarkable.

Subsequently, visit opportunities were offered to other public safety personnel, with notable benefit for them. These continued to be well received by the survivors.

Analysis of Survivor Visits as Intervention
An analysis of the benefit of this intervention follows, in colloquial terms:

The visual image can be a sticking point in recovering from trauma.

The intrusive negative image is a gateway to the visceral component of traumatic emotions.

Negative images can freeze the person at that moment in time when fear and anxiety are at a peak – and as such are past-centered.

The best countermeasure to traumatic imagery is positive imagery.

Positive images reinforce safety and the reality of the moment – and as such are present-centered.

It was hypothesized that specific positive images of recovery would mitigate the negative imagery associated with exposure to the trauma for responders. That is, to be witness to the survivors' recovery and return to health would function as a countermeasure to the traumatic imagery experienced by first responders and medical providers. Though this intervention appears to be counter to standard hospital practice, it should be considered in future mass casualty situations.

First Hours

During the first hours there is opportunity to restrict access to disturbing scenes, limiting the exposure to particularly aversive images, and thus managing the memory of the event.

This relates to direct exposure to incidents, and indirect exposure via the media.

Varied formal and informal practices are in place in pubic safety settings to limit access to crime scenes for a variety of reasons. It appears prudent to consider likewise limiting access to the imagery of trauma, through the media and otherwise.

Considering the Broadcast of the Killer's Video

The airing of the killer's video raises compelling questions relative to its impact on victims and loved ones:

-Did the timing and the content of the killer's video worsen the traumatic impact of the event?

-If the video did worsen trauma for victims, was its airing balanced by some other benefit?

-Was the TV airing of the killer's video akin to mass marketing of traumatic imagery?

Commentary on Broadcast of the Killer's Video: Capus and Ross

From: *"Decision Examined: Poynter Discussion of NBC's Use of the Killer's Video"*

(http://www.poynter.org/column.asp?id=10 1&aid=121760)

The contrasting views of NBC News (by president Steve Capus) and its local affiliate,

WSLS TV Roanoke, (by Jessica A. Ross) touch on ethical questions, while simultaneously illuminating the differing perspective of the national and local broadcast media.

> *I want to take a moment to explain our decision. I assure you it was not taken lightly. It was only done after careful consideration and with great sensitivity to the families and friends of the victims and the entire community of Virginia -Tech. Steve Capus, NBC News*

> *After a serious editorial discussion, the Newschannel 10 management team has decided to no longer air any audio from Cho Seung-Hui's ranting death tape. We will also no longer show any images of him pointing weapons at the camera. We realize that would only further cause pain to the Virginia Tech community.*

> *-Jessica A. Ross, WSLS TV Roanoke*

Managing Media Impact

The media operate by a code of behavior that is poorly understood by outsiders (including mental health professionals), making effective interaction with the media challenging.

Media training, that is, training in skills and methods for interacting effectively with the media, is increasingly common among those anticipating media contact.

Mental health providers responding to mass casualty need a media plan to address issues including the following: their own personal behavior with the media; the varying desire of the victims (and others) to either interact with or avoid the media; and milieu-violating behaviors on the part of the media.

A media-intervention strategy should recognize and respect the important role media play in bringing news of significant events to the public.

Dynamics of Media Interaction
The manner by which a media interview is sought and conducted is unfamiliar to most mental health professionals.

The experience of the Virginia Tech shootings suggests that media contacts should be approached with caution.

Specifically, counselors are cautioned to anticipate insensitivity, entitlement and deception.

Experiences that serve as the basis for this caution are elaborated below:
The apparent assumption of a right to have access to restricted settings, active resistance to leaving secure areas when asked to do so, and attempting to negotiate based on sense of entitlement – "Do you know who I am?"

Readiness to use deceptive practices to gain access to secure areas.

Apparent lack of concern for the impact of their behavior on victims (e.g., rush to display grieving without asking permission; violation of typical personal space boundaries; disrespect for a stated wish for privacy).

Attempts at access to and control of information to the exclusion of colleagues in the field.

Media-Related Intervention Strategies
General Considerations
Media presentation of an event, whether accurate or not, well intentioned or not, may have a potentially counterproductive or even inflammatory effect.

Providing information is a media role, though there is a lack of any pervasive, rigorous standard for accuracy.

Providing aid and support is not a media role.

Providing entertainment may be a media role.

The interviewee lacks control over the skew or slant of the presentation of the interview.

Counselors Personally Interacting with the Media
Questions to consider:
-What is the benefit of speaking with the media?

-What are the potential costs of media contact? Examples include the possibility of unintended privacy violations; failure on the part of the interviewee to effectively present the intended point of view; and misrepresentation of one's personal view even when effectively presented.

-If there is a need to communicate with the media, who might best fill that role?

-Be aware of the seductive nature of the media interview. The request to provide an interview can be flattering and cultivate a false sense of importance.

Media-Related Counseling Interventions About Granting a Media Interview
A question or concern about granting a media interview may arise from victims, their loved ones, medical and public safety responders, or others who are formally or informally consulting with a mental health professional. The goal is to facilitate decision-making regarding whether or not to grant an interview.

The counselor may offer information from general considerations noted above.

The counselor may also ask cautionary questions, such as: "What do you hope to accomplish by granting an interview?" and "Do you trust that you will be treated fairly?"

About TV/ Media Viewing

Media viewing, in particular vivid visual presentation of events, can have a potent impact. This may be informative or illuminating; alternately, it may be distressing or disruptive.

A systematic attempt to give careful consideration to the pros and cons of media viewing is likely to be of value, particularly for those who are intimately associated with an event.

Maintaining a Therapeutic Milieu

Media intrusion is a systems problem to which all should be alert.

In response to acute crisis, mental health providers need to cultivate a sense of sanctuary for victims, and thus also to be vigilant to unwanted media intrusion.

Examples of milieu violations include the following:

-Direct attempts to physically cross security lines;

-Attempts to enter through restricted access points (e.g., staff entries) as staff exit;

-Bait and switch tactics, such as asking for access to a bathroom then proceeding to secure locations;

-Misrepresenting identity in order to gain access, including use of disguises;

-Unsolicited contacts with victims and family via contact information acquired from various information databases (e.g., using vehicle license numbers as a means to obtain personal information);

-Contact with hospital staff under false pretenses, (e.g., posing as representatives of insurance companies seeking access to patient information); and

-Unsolicited and deceptive contacts with staff (e.g., posing as members of organizations with whom staff are affiliated).

Concluding Comments

It is tempting to think of the media as a single entity, when in fact it is a truly diverse enterprise. A particularly important distinction seems to be between those media outlets that are exclusively news-oriented and those whose mission is skewed toward entertainment. In general, the offensive behavior noted in this report was more typical of the national broadcast media than of local media, and of broadcast media than of print media.

The interests of the mental health professions and the media converge where issues bearing on mental health are newsworthy, as in the Virginia Tech Shootings. Given this potential common ground, in conjunction with the right, need and expectation of the public to be informed of important events, the media are among the groups with whom mental health providers should seek to form partnerships. How mental health professionals could best embark on this task is outside the scope of this report.

However, the relatively favorable feelings toward local media are noteworthy. Perhaps this is because as members of the community, the local media have a true sense of ownership, and are more inclined to form

partnerships. The deep and intensely offensive feelings evoked by some in the national broadcast media may be related to their projection of a false sense of ownership that is perceived as entitlement.

If mental health-media partnerships are to be realized, proactive planning for interaction in times of crisis is necessary. Given the emotionally compelling nature of the task faced by mental health crisis responders and their potential lack of media intervention skills, this particular group is likely not well positioned to respond to the media. A more pragmatic course may be for professional mental health organizations, with access to experts and existing media plans, to implement the media partnership, involving local providers in those ways deemed most reasonable.

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