

VISUELE STEREOTIPERING VAN SPORTVROUE IN DIE SPORTMEDIA

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ABSTRACT

Despite various attempts at achieving gender equality in sport, the media is still dominated by stereotypical representations of sportswomen. The purpose of the present research was to describe gender subjectivity and gender stereotyping in the visual portrayal of sportswomen in one of the largest South African sports magazines, and to determine the value of vector analysis as a visual-grammatical analysis instrument in identifying and opposing dominant ideologies. A literature review of published research on under-representation and stereotyping of sportswomen in the media was undertaken. The theoretical and methodological framework was Critical Discourse Analysis and Kress and Van Leeuwen's (1996; 2006) 'visual grammar', with specific emphasis on vector analysis. The types of vectors operating in visual representations and their relationship to the stereotypical constructions of sportswomen in the media were determined. Five photographs were critically analysed, one example from each stereotypical construct: 'Athletic' (the positive stereotype) as opposed to 'homosexual', 'loser', 'model' and 'sex object' (negative stereotypes) were identified. The most important conclusions are that sportswomen were predominantly stereotyped negatively in the sports magazine under scrutiny, and that vector analysis is a useful heuristic tool in identifying and confirming visual subjectivity.

Keywords: Women in sport; Critical discourse analysis; Gender stereotyping in sport; Gender inequality; Gender ideology; Vector analysis; Visual grammar.

INLEIDING

In hierdie artikel word gerapporteer oor die aard en intensiteit van gender-subjektiviteit in die visuele afbeeldings van sportvroue oor "n tydperk van ses jaar in een van die Suid-Afrikaanse glans-sporttydskrifte met die hoogste sirkulasiesyfers. Volblad-visuele voorstellings van sportvroue wat vanaf Januarie 2002 tot Januarie 2008 in "n foto-rubriek in dié tydskrif gepubliseer is, is ondersoek en krities beskryf. In die analises is veral gebruik gemaak van vektoranalise as "n tegniek wat aan die „visuele grammatika“ van Kress en Van Leeuwen (1996; 2006) ontleen is.

AGTERGROND EN RASIONAAL

Die Vrouebeweging (1970), die instelling van Titel IX in die Verenigde State van Amerika (VSA) (Title IX, 1972), asook gendergeoriënteerde ontwikkelingsinisiatiewe het daartoe

bygedra dat vroue vandag vrylik, met enkele uitsonderings, aan bykans alle sportsoorte kan

deelneem. Genderygelykheid vir vroue in sport word ook binne die Suid-Afrikaanse konteks as een van die regering se nasionale prioriteite beskou (SRSA, 2006:3). Ten spyte van pogings tot genderygelykheid in sport word daar egter in die media steeds stereotipiese verwagtingspatrone rondom vroulike seksualiteit en vroulike optrede gestel (Houlihan, 2003:90). Stereotipering hou dikwels skadelike gevolge vir sportvroue in, professioneel, fisiek sowel as geestelik en emosioneel. Die sportmedia se dekking van vrouesport reflekteer verder selde die suksesverhale of oorwinnings van sportvroue op die sportveld deurdat daar op stereotipiese uitbeeldings gefokus word (Bishop, 2003:1,2).

Teenstrydige verwagtinge wat aan sportvroue gestel word, naamlik om „kosmeties“ fiks genoeg te wees om media-aandag te kry, en terselfdertyd fisiek in staat te wees om kompetierend deel te neem, veroorsaak dat sportvroue dikwels sielkundig knak en sodoende permanent uit sport tree. Gespierde sportvroue word ook gedurig gekonfronteer met die etiket

„lesbies“ (Boutilier & SanGiovanni, 1983:45). Sielkundige probleme onder sportvroue is nie net kommerwekkend aangesien dit fisieke skade tot gevolg het nie, maar het ook 'n direkte invloed op die toekoms van vrouesport in die algemeen. Volgens Oglesby (1978:65) het 'n sportvrou se liggaamlike selfbeeld ongetwyfeld ook 'n invloed op die keuse van 'n sportsoort, en in bykans alle gevalle dra 'n oorbeklemtone van kosmetiese fiksheid by tot 'n afname in deelnemersgetalle (Coakley, 2003:249). Vanuit 'n sosiale oogpunt versterk genoemde situasie genderongelykheid, veral die mite dat sport om fisieke redes slegs vir mans geskik is.

Hoewel die afleiding gemaak kan word dat Suid-Afrikaanse sportvroue op dieselfde manier as Amerikaanse sportvroue deur stereotiperende mediadekking geraak word, is daar klaarblyklik nog geen empiriese studies oor die visuele of verbale diskoers ten opsigte van sportvroue in die Suid-Afrikaanse media gepubliseer nie. Die geskiedenis van vrouesport in Suid-Afrika is ook nog nie grondig gedokumenteer nie (Hargreaves, 1997:192). Verder berus uitsprake oor genderrolstereotipering op die subjektiewe oordeel van individue, en is dit nie maklik om te bewys dat die voorstelling van veral sportvroue deur die media teenstrydig is met die gewenste uitbeelding nie, naamlik as kompeterende en/of professionele sportlui.

In hierdie artikel word gepoog om “n bydrae te lewer tot die vul van hierdie navorsingsleemte deur die aanwesigheid van stereotipering in die Suid-Afrikaanse glans-sporttydskrif met die tweede grootste sirkulasiesyfer, uit te lig en te belig aan die hand van kritiese analises en om die heuristiese waarde van vektoranalise as 'n visuele analise-instrument te toon.

Eerstens word “n oorsig gegee van gepubliseerde empiriese studies oor mediadekking van mans en vroue in die tydskrif *Sports Illustrated* (VSA-uitgawe), en leemtes in hierdie studies word uitgewys. Dit word gevolg deur “n beskrywing van die metodologie wat gevolg is vir die navorsing waaroor in hierdie artikel gerapporteer word, en “n bespreking van die bevindinge. Die artikel word afgesluit met “n gevolgtrekking oor die aard van die visuele stereotipering van sportvroue in die Suid-Afrikaanse ekwivalent van laasgenoemde tydskrif, en die moontlike rol wat elemente van 'n visuele grammatika in die identifisering

daarvan kan speel.

LITERATUUROORSIG: GENDERONGELYKHEID IN *SPORTS ILLUSTRATED* (VSA-UITGAWE)

Eerstens is die gebrekkige verteenwoordiging van sportvroue in *Sports Illustrated* kommerwekkend. Reid en Soley (1979) se inhoudsanalise van die uitbeelding van sportvroue in *Sports Illustrated* tussen 1956 en 1976 het bevind dat sportvroue persentasiegewys slegs 3.2% mediablootstelling kry, teenoor 6.9% tydskrifspasie wat aan sportmans gewy word (Reid & Soley, 1979:4). Bishop (2003:192) se analise van *Sports Illustrated* gedurende die 1980s, vier jaar na die studie van Reid en Soley, het bevind dat daar geen merkwaardige toename in die aantal artikels oor vrouesport was nie en dat slegs drie van die artikels in die datakorpus sportvroue se suksesverhale op die sportveld beskryf het. Verder is ook bevind dat sportvroue in sekondêre rolle teenoor sportmans uitgebeeld word (Bishop, 2003:192).

Boutillier en SanGiovanni (1983:209) het die visuele gelykberegting van mans en vroue in *Sports Illustrated* ondersoek, en het aangetoon dat sportvroue minder as 5% publisiteit deur middel van foto's geniet het in die uitgawes wat tussen 1954 en 1978 verskyn het. Fink en Kensicki (2002) rapporteer dat die analise van die visuele diskoers op voorblaaie van *Sports Illustrated* oor 'n tydperk van drie dekades (1957-1989) bevind het dat sportvroue steeds minder mediablootstelling geniet en meer stereotipes op sporttydskrifte se voorblaaie as sportmans uitgebeeld word. Volgens Kane (1996:7) het hierdie patrone van mediablootstelling nie veel verander sedert die genoemde navorsing nie, en verwys spesifiek na 'n studie van 1991 wat bevind het dat 91% van die inhoud van *Sports Illustrated* sportmans en hulle prestasies verteenwoordig. 'n Soortgelyke studie wat 1105 artikels en 1745 foto's in *Sports Illustrated* tussen 1997 en 1999 ondersoek het, het aangetoon dat sportvroue steeds onderverteenvoerdig is en in tradisionele rolle in die nie-sportkonteks uitgebeeld word (Fink & Kensicki, 2002). Die gebrekkige verteenwoordiging van sportvroue in die media is ook nie slegs beperk tot volwasse sportvroue nie, en duidelike genderfrekwensie-uitvalle is ook in die weergawes van *Sports Illustrated for Kids* (VSA-uitgawe) aanwesig. Die ratio van visuele beelde (foto's) in 'n ondersoek van Duncan en Sayaovong (1990) was 62% seuns teenoor 28% meisies.

Die wanbalans in die mediadekking van sportmans en -vroue kan moontlik geregtig word deur die argument dat *Sports Illustrated* se grootste lesersaanhang uit mans bestaan. Bishop (2003:192) redeneer egter dat *Sports Illustrated* een van die VSA se gewildste sporttydskrifte is, en ook so bemark word (Bishop, 2003:192), sonder verwysing na een van die geslagte. Die tydskrif het derhalwe "n etiese verantwoordelikheid om gelykwaardige dekking aan vroue- sowel as aan mansport te verleen. Die Suid-Afrikaanse situasie is hiermee vergelykbaar. Sirkulasiesyfers wat deur Media 24 versprei is, het aangedui dat *Sports Illustrated* se Suid- Afrikaanse eweknie die tweede hoogste sirkulasiesyfer naas die sokkertydskrif *Kick Off SA*, sedert sy debuut in 1986, handhaaf (Naspers, 2006:1). In die tweede instansie is vrouesport meer populêr as ooit, op professionele sowel as op tersiêre vlak (Bishop, 2003:192). Bogenoemde studies toon duidelik aan dat sportmans en -vroue, spesifiek in die VSA, nie gelyke beregtiging geniet in terme van mediadekking in een van die algemene sporttydskrifte met die hoogste sirkulasiesyfers, te wete *Sports Illustrated*, nie.

Naas die kwessie van verteenwoordiging het 'n aantal navorsers ook die stereotipiese uitbeelding van sportvroue op verbale en visuele vlak in *Sports Illustrated* ondersoek. In die

algemeen is bevind dat sportvroue steeds volgens stereotipiese verwagtingspatrone uitgebeeld word: 'n bepaalde fisieke profiel ('n perfekte bolyf, heupe, haarstyl, gelaatstrekke, plankdun) sowel as 'n bepaalde sosiale profiel (vroulike optrede, nie-kontroversiële gedrag, vroulike kleredrag) (Boutilier & SanGiovanni, 1983:21,45; Coakley, 2003:248). Gespierrede sportvroue word verder met die etiket „lesbies“ (Boutilier & SanGiovanni, 1983:45) gekonfronteer. Verskeie studies toon dat bepaalde sporttipes binne die konteks van vrouesport meer mediablootstelling as ander kry. Daar word in die verband na „geslagsgewenste“ en „geslagsongewenste“ sportsoorte verwys. Mary Jo Kane, bekende navorsers en direkteur van die Tucker-sentrum vir navorsing oor vrouesport in die VSA, is van mening dat sportvroue steeds nie werklikheidsgetrou uitgebeeld word nie. Kane doen “n beroep op die media om vroulike „skoonheid“ met „fisieke krag“ te kombineer in “n poging om die realiteit van sportvroue in die media te kommunikeer (Women’s Sports Foundation, 2010). Sy eis dat sportvroue so uitgebeeld word dat hul vaardighede as sportvroue ten toon gestel word, en nie as modelle wat tydskrifte verkoop nie. Seksistiese beelde word egter steeds gebruik om vrouesport te bevorder deur hulle as seksobjekte eerder as sportvroue voor te stel (Women’s Sports Foundation, 2010).

Die meeste studies oor stereotipering van sportvroue in die media skiet daarin tekort dat hulle grootliks impressionisties is, en dat die uitbeelding van sportvroue in sporttydskrifte nie op 'n sistematiese wyse ondersoek en beskryf word nie. Hoewel die datakorpus vir die navorsing waaroor in hierdie artikel gerapporteer word, relatief klein is, word gepoog om die visuele diskoers oor sportvroue in die Suid-Afrikaanse ekwivalent van *Sports Illustrated* sistematies te beskryf deur van 'n visueel-grammatiese metode wat bekend staan as vektoranalise gebruik te maak.

TEORETIESE ONDERBOU

Kritiese Diskoersanalise (KDA), wat bekend geword het deur die werk van taalkundiges soos Fairclough (2001, 2003, 2004), Wodak en Meyer (2001), Wodak (2006), Van Dijk (1993, 1997a, 1997b, 2004, 2005), het as teoreties-filosofiese raamwerk vir die navorsing gedien. KDA het veral ten doel om die wyse te belig waarop diskoers sosiale entiteite (insluitende sportvroue) konstrueer. Die kritiese perspektief van KDA is dus gerig op die ontmaskering van diskursiewe magmisbruik wat sosiale ongelykheid bevorder. KDA het dié tekortkoming dat dit nie oor “n model of raamwerk beskik waarvolgens diskoerse op mikrovlak ontleed kan word nie. Vir dié doel is daar veral sterk op Halliday se Sistemiese Funkisionele Grammatika gesteun (Halliday, 1994; Halliday & Mathiessen, 2004). Met die toenemende klem op die multimodaliteit van diskoerse het 'n behoefte ontstaan aan 'n grammatika wat ook ander semiotiese sisteme insluit.

Kress en Van Leeuwen het hierdie leemte in die middel negentigerjare waargeneem en die eerste redelik algemeen aanvaarde „visuele grammatika“ opgestel, gegrond op Sistemiese Funkisionele Grammatika (Kress & Van Leeuwen, 1996). Die outeurs verdeel alle visuele

afbeeldings in twee kategorieë, naamlik „narratief“ en „konseptueel“. Narratiewe afbeeldings bevat “n aksiekomponent en konseptuele afbeeldings is hoofsaaklik staties en tydloos. Die foto’s wat in sportverslaggewing gebruik word, behoort tipies tot die narratiewe kategorie deurdat hulle beskryf kan word as “unfolding actions and events, processes of change, and transitory spatial arrangements” (Kress & Van Leeuwen, 2006:59). Wanneer “n objek of

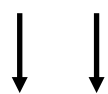

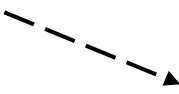
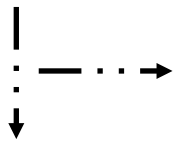

entiteit as die aktiewe deelnemer in die visuele afbeelding beskou word, word die betrokke persoon die „doener“ (*actor*) genoem. Die verbindingslyn, denkbeeldig of werklik, word “n vektor genoem. Die entiteit waarmee die doener wisselwerking uitoefen, word die „doel“ genoem, en hierdie is die entiteit waarmee die doener se vektore verbind word om “n soort aksie of interaksie te vergestalt. Vektore word gewoonlik gevorm deur uitgebeelde elemente in die foto met mekaar, of met elemente in ’n ander afbeelding, deur middel van “n lyn wat dikwels “n sterk, diagonale lyn is te verbind (Kress & Van Leeuwen, 1996:47). Die lyne kan tussen liggaamsdele strek of tussen liggaamsdele en statiese objekte.

Kress en Van Leeuwen (1996; 2006) onderskei drie tipes vektore, naamlik, *aksievektore*, *reaksievektore* en *statiiese vektore*. Daarbenewens onderskei die navorsers ook tussen *sensuele* en *emosionele vektore*, wat tipes reaksievektore is en wat staties of nie-staties mag wees, maar wat na sensuele aspekte verwys. Die vektorlyn wat gevorm word, stel dus die sportvrou op so ’n manier aan die leser bekend dat die fokus op die seksuele en sensuele val. Vervolgens word ’n oorsig gegee oor die onderskeie tipes vektore wat vir die analise van sportfoto’s onderskei is.

- ***Aksievektore*** is vektore wat gebruik word om die sportvrou se liggaam vir die kyker in ’n spesifieke sporthouding of -posisie te plaas. Die gevolg is die beklemtoning van die sportaksie, en die fokus word op sportapparaat of -toerusting gestel. Hierdie vektore is dus in die konteks van hierdie studie „positief“ van aard in die sin dat hulle die sportvrou positief stereotipeer, deur haar as „atleties“ uit te beeld.
- ***Reaksievektore*** is die vektore wat gevorm word op die ooglyn, deur die rigting van die starende blik („gaze“), van een of meer deelnemers (vertegenwoordigers). Die „reaktor“ is die persoon wat self verantwoordelik is vir die „kyk“ (Cross, 2006:176). Die fenomeen mag ook deur ’n ander deelnemer of deur die deelnemer na wie die „reaktor“ kyk, gevorm word. Die starende blik het tot gevolg dat die sportvrou op grond van haar „gesigsuitdrukking“ as „model“ voorgestel word.
- ***Statiiese vektore*** is horisontale of vertikale lyne, dus nie skuins lyne nie, wat die subjek as staties of passief posisioneer. Sportaksie word dus in die proses onderdruk. Die sportvrou word so tipies as „model“ of „verloorder“ uitgebeeld. Uiteraard kan meer as een tipe vektor in dieselfde visuele voorbeeld voorkom en sodoende twee of meer van bogenoemde vektor-kategorieë kombineer.
- ***Sensuele aksievektore*** is ’n kategorie wat op beide die sensuele en sportaksie van die sportvrou fokus en die sportvrou op dié wyse as „homoseksueel“ posisioneer.
- ***Sensuele* en *emosionele vektore*** is vektore wat, deur die fokus op sensuele en emosionele komponente in die visuele uitbeelding, die sportaksie onderdruk en so emosie oorbeklemtoon en die sportvrou gevolglik as „verloorder“ uitbeeld.

Die bespreekte vektore is in Tabel 1 volgens hulle vorm gekategoriseer, asook die belangrikste dimensies of konstrunkte van stereotipering wat hulle tot gevolg het, naamlik die uitbeelding van die sportvrou as *homoseksueel*, *model*, *verloorder*, *seksobjek* en *atleet*. Hierdie dimensies is gekoppel aan visueel uitbeeldbare eienskappe van sportvroue (konstrukeienskappe), byvoorbeeld „liggaamshouding“, „-bou“, „kleredrag“ en „gesigsuitdrukking“.

TABEL 1: TIPES VEKTORE

Tipes vektore	Grafiese voorstelling	Beskrywing	Stereotipiese dimensies (konstrukdimensies)
Reaksievektore		Vektor verbind ooglyn van figuur en leser en het 'n starende blik („gaze“) tot gevolg.	MODEL
Sensuele vektore		Vektore verwys na sensuele en seksuele.	SEKSOBJEK of HOMOSEKSUEEL (In gevalle waar sensuele en aksievektore kombineer)
			of VERLOORDER (In gevalle waar sensuele en emosionele vektore kombineer)
Aksievektore		Vektore (gewoonlik skuins lyne): figuur in aksieposisie.	ATLEET of HOMOSEKSUEEL (in gevalle waar sensuele en aksievektore kombineer)
Statische vektore		Vektore is staties (horisontaal of vertikaal): figuur in statiese posisie.	MODEL of VERLOORDER
Emosionele vektore		Vektore verwys na emosionele (skuins lyne), met die doel om die sportaksie te onderdruk en emosie uit te lig.	VERLOORDER (in gevalle waar emosionele en sensuele vektore kombineer)

Kombinasie van sensuele en aksievektore	Soos hierbo aangedui	Vektore verwys na aksie (skuins lyne), met die doel om bultende spiere en manlikheid te beklemtoon.	HOMOSEKSUEEL
Kombinasie van emosionele en sensuele vektore	Soos hierbo aangedui	Vektore verwys na sensuele en emosionele (skuins lyne), met die doel om sportaksie te onderdruk en emosie uit te lig.	VERLOORDER

Volgens Kress en Van Leeuwen (1996) gee vektore tot „visuele mediëring“ aanleiding. Laasgenoemde behels die subjektiewe samestelling van visueel-semiotiese elemente deur die media. Die keuses wat die fotograaf as visuele skepper („*mediator*“) uitoefen met betrekking tot elemente van visuele grammatika, lei dikwels tot gendersubjektiviteit (McGinnis *et al.* 2003:11).

KRITIESE ANALISES

Metode

Eers is die vektore visueel op elke foto aangebring met behulp van vektorpyle, en daarna is die korpus van dertien foto's krities ontleed volgens die tipologie. Die tipes vektore (soos uiteengesit in Tabel 1) is geïdentifiseer op grond van pertinente lyne wat deur die sportvrou se „liggaamshouding“, „-bou“, „kleredrag“ en „gesigsuitdrukking“ gevorm word, en vestig die leser se verbeelding en aandag op die simboliese waarde en „betekenis agter die lyn“ (Kress & Van Leeuwen, 1996:70). Die stereotipiese konstruksdimensies is vervolgens bepaal. Vir die doel van die artikel is die gesigte op die foto's verdof ten einde anonimiteit te verseker. Kopiereg is bekom deur die aankoop van die betrokke foto's via Gallo Images.

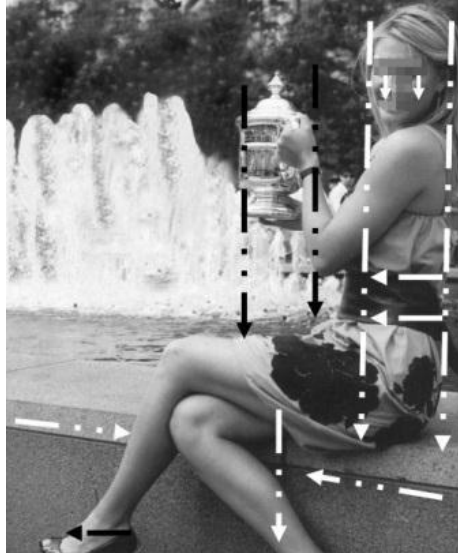
Analise van vyf foto's

Een foto wat verteenwoordigend is van elkeen van die vyf konstruksdimensies (*homoseksueel*, *model*, *verloorder*, *seksobjek*, *atleet*) is vir bespreking in hierdie artikel geselekteer. Slegs die konstruksdimensie „atleet“, verteenwoordig positiewe stereotipering (gewenste uitbeelding), terwyl al die ander dimensies die sportvrou op nie-gewenste wyses uitbeeld. In Figuur 1 word die sportvrou, gegrond op die vektoranalise, as „homoseksueel“ uitgebeeld.



FIGUUR 1: FOTO 1 MET VEKTOR-ANALISE
(SA Sports Illustrated, 2004a)

In die uitbeelding van die voetbalspeler (sportvrou met nommer 10 op haar hemp), is daar ‘n aantal *sensuele aksievektore* aanwesig, wat veral „liggaamsbou“ en „-houding“ beklemtoon. Die stereotipiese konstrukdimensie wat hier ter sprake is, is „homoseksueel“ (Tabel 1). Die *sensuele vektore* verwys na ‘n *oormatig gespierde, onvroulike, aggressiewe* en *arrogante* „liggaamshouding“. Die *oormatig gespierde* „liggaamsbou“ word beklemtoon deur vektore wat verwys na die bultende arm- en beenspiere en die *onvroulike* „liggaamshouding“ deur arms wat oopgesprei is en die bors wat uitgestoot is. Die vektore wat die gespanne mond- en gesigspiere beklemtoon, beklemtoon die *aggressie* van die sportvrou en die gespanne nek-, gesig- en armspiere en uitgestote bors wat deur die vektore uitgelig word, beklemtoon die *arrogante* „liggaamshouding“. Die *aksievektore* plaas klem op sportaksie en daardeur word die aktiewe „liggaamshouding“ uitgelig.



FIGUUR 2: FOTO 9 MET VEKTOR-ANALISE
 (SA Sports Illustrated, 2004b)

Foto 9 (Figuur 2) uit die korpus is “n voorbeeld van die negatiewe stereotipering van die sportvrou as „model“. In die uitbeelding (Figuur 2), speel die reaksie- en statiese vektore “n bepalende rol. Die **reaksievektore** veroorsaak “n starende blik vanaf die sportvrou se ooglyn na die leser, wat haar *verleidelikheid* beklemtoon. Die *nie-sportiewe* „klededrag“ word deur die statiese vektore, wat na die modeskoene verwys, beklemtoon. Die gedraaide skouer en die vektore wat na die bene en skoene verwys, versterk die *verleidelike* „liggaamshouding“. Die **statische vektore** beklemtoon verder die loopplankmodel-„liggaamsbou“ en word ondersteun deurdat *sportaksie* (aksievektore) ontbreek.

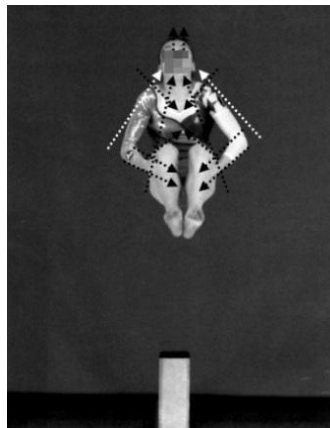
Foto 4 kan beskou word as “n voorbeeld van die uitbeelding van die sportvrou as „verloorder“, op grond van die vektoranalise, soos aangedui in onderstaande voorbeeld (Figuur 3).



FIGUUR 3: FOTO 4 MET VEKTOR-ANALISE
(SA Sports Illustrated, 2004c)

In hierdie uitbeelding (Figuur 3) is daar “n aantal sensuele, emosionele en statiese vektore teenwoordig, wat bydra tot die uitbeelding van die sportvrou as „verloorder“. Die *sensuele* en *emosionele vektore* beklemtoon die sportvrou se „liggaamsbou“, „-houding“, en *emosionele aard*, wat teenstrydig is met “n sportiewe uitbeelding. Die *statische vektore* beklemtoon die *passiewe* „liggaamshouding“ en gebrek aan sportaksie.

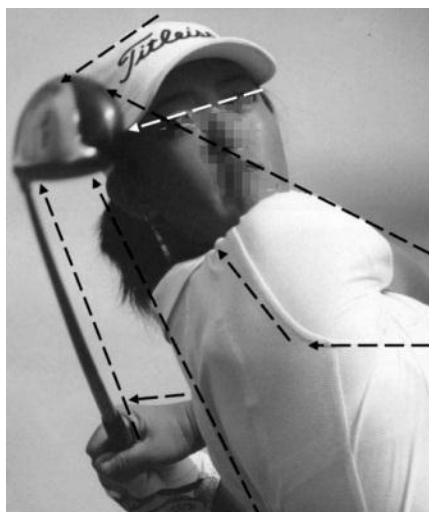
Die sportvrou word ook dikwels as „seksobjek“ uitgebeeld. Foto 12 is deur die navorser geïdentifiseer as “n voorbeeld van die uitbeelding van die sportvrou as seksobjek, gebaseer op die vektoranalise (Figuur 4).



FIGUUR 4: FOTO 12 MET VEKTOR-ANALISE
(SA Sports Illustrated, 2008)

In Figuur 4 word die sportvrou, deur die aanwesigheid van “n groot aantal **sensuele vektore** as *seksobjek* voorgestel. Die vektore plaas klem op haar „liggaamshouding“ en „gesigsuitdrukking“, wat die konstrukdimensie ondersteun. Die sensuele vektore beklemtoon die *nie-doelgerigte* „gesigsuitdrukking“, deurdat die vektore die sportaksie en -toerusting onderspeel en die *fokus* dus *nie-gedefinieerd* voorkom. Die sportvrou se oop mond en ooglyn wat verwyder is van die sportaksie, gee aanleiding tot die *verleidelike* „gesigsuitdrukking“ en die vektore wat die sensuele en seksuele beklemtoon, ondersteun die verleidelike „liggaamshouding“.

Foto 2 uit die datakorpus kan as voorbeeld gebruik word om die uitbeelding van die sportvrou as „atleties“ te illustreer. Hierdie konstrukdimensie word as prototipies vir die uitbeelding van sportvroue in die media beskou (Figuur 5).



FIGUUR 5: FOTO 2 MET VEKTOR-ANALISE
(SA Sports Illustrated, 2004b)

In Figuur 5 is daar heelwat aksievektore teenwoordig. Die prototipiese konstrukdimensie „atleties“ word gevolglik daardeur versterk. Die **aksievektore** verwys na “n *atletiese* „liggaamsbou“, sportiewe „kleredrag“, vroulike „liggaamshouding“ en *gedetermineerde* „gesigsuitdrukking“. Die *aktiewe, atletiese* „liggaamsbou“ word beklemtoon deur die klem na die sportaksie te verskuif. Alle vektore wys na die gholfstok (sportapparaat). Die „kleredrag“ word nie oor- of onderbeklemtoon nie en die tipe „liggaamsbou“ word onderspeel, deurdat klem op die *sportaksie* val.

Opsomming van bevindinge

Volgens vektoranalises van die hele datakorpus van 13 foto’s is vyf geïdentifiseer as prototipiese uitbeeldings van sportvroue. Hierdie foto’s word as positief stereotiperend beskou en is onder die konstrukdimensie *atleties* gekategoriseer. Die foto’s word visueel in Figuur 6 opgesom.



Foto 2



Foto 7



Foto 8

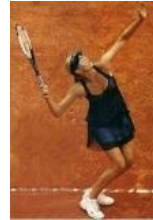


Foto 10



Foto 13

FIGUUR 6: FOTO'S VERTEENWOORDIG KONSTRUKDIMENSIE 'ATLETIES'

Agt van die 13 foto's is op grond van die vektoranalises as negatief stereotiperend geklassifiseer, en dus as nie-gewenste uitbeeldings van sportvroue. Hierdie foto's is onder die konstrukdimensies *homoseksueel*, *verloorder*, *model* en *seksobjek* gekategoriseer. Die foto's word visueel in Figure 7-10 opgesom.



Foto 1



Foto 3



Foto 5



Foto 6

FIGUUR 7: FOTO'S VERTEENWOORDIG KONSTRUKDIMENSIE 'HOMOSEKSUEEL'



Foto 4



Foto 11

FIGUUR 8: FOTO'S VERTEENWOORDIG KONSTRUKDIMENSIE 'VERLOORDER'



Foto 9

FIGUUR 9: FOTO VERTEENWOORDIG KONSTRUKDIMENSIE 'MODEL'



Foto 12

FIGUUR 10: FOTO VERTEENWOORDIG KONSTRUKDIMENSIE 'SEKSOBJEK'

GEVOLGTREKKINGS EN TOEKOMSTIGE NAVORSING

Die belangrikste gevolgtrekkings wat uit hierdie studie gemaak kan word, is dat sportvroue oorwegend negatief in gestereotipeer word in die glans-sporttydskrif met die tweede grootste sirkulasiesyfer in Suid-Afrika, en dat vektoranalise 'n nuttige heuristiese middel is om visuele subjektiwiteit te identifiseer en te bevestig in die uitbeelding van sportvroue in die media. Met die oog op toekomstige navorsing word daar aanbeveel dat die visuele grammatika van Kress en Van Leeuwen (1996; 2006) meer omvattend en uitgebreid toegepas word. In hierdie studie het die diskoersanalise hoofsaaklik van vektoranalise gebruik gemaak om die stereotipiese konstruksies en eienskappe van visuele subjektiwiteit te identifiseer. Ander visueel-grammatiese elemente, byvoorbeeld perspektief, aansig, voor- en agtergrondprominensie, figuurkomposisie en uitleg, behoort in toekomstige studies in kritiese analyses gebruik te word, eerstens om "n meer genuanseerde beskrywing van visuele subjektiwiteit te gee, en tweedens om te bepaal of hierdie visuele elemente vektoranalise ondersteun, aanvul of selfs teenstrydige resultate oplewer.

SUMMARY

Visual stereotyping of sportswomen in the sports media

This article reports on the nature and extent of gender subjectivity in the visual representation of sportswomen in the glossy sports magazine with the second largest readership in South Africa. Secondly, it aims at determining the value of visual-grammatical analysis in identifying and opposing dominant ideologies.

Despite institutional and public attempts at achieving gender equality in sport stereotypical representation of sportswomen in the media is still an everyday occurrence. Instead of representing sportswomen as physically and mentally strong professionals, they are habitually portrayed as catwalk/photographic models, sex objects, losers or lesbians. These representations are probably fuelled by stereotypical expectations regarding female sexuality and feminine behaviour. Apart from the fact that sportswomen do not approve of the way they are regularly represented, it is also a well-documented fact that stereotyping

has a number of negative effects on sportswomen, professionally and physically, as well as mentally and emotionally. Contradictory expectations, for example, to be 'cosmetically' fit for

media attention, yet physically fit to compete professionally, often result in psychological breakdown and may even cause permanent resignation from sport.

All the full-page visual representations of sportswomen that appeared in the photo section of the particular magazine between January 2002 and January 2008 were critically analysed. An overview is given of published research on under-representation and stereotyping of sportswomen in the media, with specific reference to the United States counterpart, *Sports Illustrated*. A research deficiency was identified, namely a lack of systematic empirical studies on visual stereotyping of sportswomen in the sport media, particularly in the South African sport media. The theoretical and methodological framework that underpinned the study was Critical Discourse Analysis and Kress and Van Leeuwen's (1996) so-called 'visual grammar', which is a 'translation' of Hallidayan Systemic Functional Grammar. Critical Discourse Analysis served as the analytical and philosophical framework, while vector analysis was selected as the analytical tool. Five types of vectors were distinguished: static vectors, action vectors, reaction vectors, sensual vectors and emotional vectors. In the article five photographs from a total corpus of 13 were critically analysed, one example from each stereotypical construct. The critical analyses of the selected photographs culminated in the findings regarding all 13 photographs comprising the corpus.

The main finding is that five (38.5%) of the 13 photographs comprising the corpus portray sportswomen in a positive or desirable way, namely as „athletic“, while the remaining eight photographs (61.5%) portray the sportswomen in stereotypical ways, that is as „homosexual“, „loser“, „model“ and „sex object“. The most important conclusions derived from this study were firstly, that the visual portrayal of sportswomen in the South African glossy sports magazine with the second largest readership confirm and perpetuate stereotypes that increase sales to a predominantly male readership, yet betray the preferred image of the women that were depicted. Secondly, it was established that vector analysis was a useful heuristic tool for establishing visual subjectivity in the visual representation of sportswomen.

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TOURIST CONSIDERATIONS IN HOSTING A MEGA SPORT EVENT: 2010 FIFA WORLD CUP IN SOUTH AFRICA

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ABSTRACT

Hosting a mega sport event has the potential to raise the profile of a destination. Being an experience good, the demand increases after the first consumption, if the destination delivers on the desired experience. In preparation for a mega-event it is thus necessary to ascertain the perception of the host country and challenges it needs to overcome from a sport tourist perspective, prior to the event. South Africa (SA) is to host the Fédération Internationale de Football Association (FIFA) 2010 World Cup, and this study seeks to elicit the perceptions of a similar target market namely spectators to the FIFA Confederations Cup, SA 2009, about SA's ability to do so, and compares the findings with a variety of related studies. Almost all respondents were of the opinion that SA had the ability, that the matches were well organised, but that the services provided by the private sector was better than those provided by the public sector such as transport. For them it was a very emotional experience in that it generated excitement and a sense of belonging, thus enabled them to celebrate a subculture sport spectators uniquely share. However, SA must get the basics right in terms of world-class facilities and services if it wants to reduce the legacy of Afro-pessimism.

Key words: Mega sport event; FIFA World Cup; Sport event motivation; Sport event attraction; Hyper-experiences; Spectator perceptions.

INTRODUCTION

South Africa (SA) is to host the Fédération Internationale de Football Association (FIFA) 2010 World Cup (FWC). Hosting this event promises to the nation, not only the excitement of the media exposure, but the expectation of a positive return on the considerable investment (Whitson, 2004:1215; Bohlmann & Van Heerden, 2005), if sport tourists' needs are taken into consideration (Florek *et al.*, 2008:211; Bresler, 2010:34). The FWC is a *mega sport event* (MSE), which has more extensive impacts than *larger sport events* (Müller & Moesch, 2010:38,39). Müller and Moesch suggest five quantitative thresholds to

demarcate a MSE, but concede that it is difficult to draw clear boundaries between a mega and a large sport event. Davies (2009:33) and Pillay *et al.* (2009:5) are of the opinion that there are only two MSEs namely the FWC and the Olympics, based on the scale of media interest. Media drawing power and coverage is also one of two mandatory criteria suggested by Müller and Moesch (2010:39), with a threshold value of broadcasting rights sold in at least 30 countries. Given their international orientation and the considerable *visitor* numbers MSE's attract, Müller and Moesch argue that substantial economic effects can be expected, especially with

respect of *tourism*. To avoid confusion when using terms, describing tourist categories the following definitions by Middleton *et al.* (2009:5) are provided:

- *Visitors* describe all travellers who fall within agreed definitions of tourism.
- A *tourist* is a visitor who stays overnight at a destination.
- *International tourists* are visitors who travel to and stay in countries other than their country of residence for less than a year.
- *Domestic tourists* are residents visiting destinations within their own country and travel for tourism purposes.
- A *sport tourist* travel to participate in or attend a predetermined sport activity (George, 2008:486). In this study it refers to a particular type of sport tourist namely a *spectator* which is passive in terms of varying participation levels (McCartney, 2005:117).

Mega sport events, also referred to as mega-events, have many divergent stakeholders and Keller (2001:10) is of the opinion that the biggest challenge is achieving a balance between distinctly different motives, and forging a collective identity or brand for a country and not just in particular locales. In this case FIFA is the prime stakeholder representing 205 national associations (Madeiro, 2007:288). It owns the event and provides the entertainment extravaganza for profit generation. FIFA's costs are covered mainly by television broadcasting and marketing rights. Host cities are required to provide the infrastructure and services and their costs are recovered mainly from the taxpayer. For cities it presents opportunities for imaging, and urban regeneration (Whitelegg, 2000; Whitson, 2004; Clark, 2008), but there are many risks involved, for example, not knowing what legacy or image the event seeks to achieve, nor understanding visitor motives; that is the benefits or outcomes they seek (Yoon & Uysal, 2005; Bresler & Mynhardt, 2010). Another risk is not recovering cost; the cost of hosting the FWC is estimated at R40 billion, and the bid-estimate in 2003 was R3 billion (Beeld, 2010:22). These risks are potentially much greater for a developing country such as SA, as FIFA draws no distinction in respect to compliance, between developing and developed country hosts (Jago *et al.*, 2010).

The paper will endeavour to ascertain what needs to be considered from a sport tourist perspective and prove that SA can host the FWC according to world-standards, and if not, what must be improved upon prior to the event to minimise the image and investment risk. The content is structured as follows; firstly a literature overview is given of hosting MSEs, sport tourists' motives, spending and activity patterns, and the challenge of delivering the desired experiences. This is followed by the empirical study, findings and management implications. The significance of the contribution lies in synthesising various articles from a sport tourist perspective to elucidate challenges in preparation for the 2010 FWC. What

makes the study unique is that it describes the preparedness of a host, prior to a MSE.

HOSTING A MEGA SPORT EVENT

An overview of hosting a MSE is given in order to appreciate the significance of the benefits and risks involved. The most popular MSE research themes are their economic impact, local development, residents' attitudes to hosting such events, place marketing, identity building

and politics (Rogerson, 2009:338), but a sport tourist, or demand perspective had been neglected (Bresler & Mynhardt, 2010). Mega sport event planning is predominantly a political hallmark decision and one of the objectives is to transform it into an urban festival through involvement by policymakers, businesses and locals (Gursoy & Kendall, 2006:603, 604). Mega sport events are likely to have long-term positive consequences for the cities that stage them and provide opportunities for increased international publicity and recognition (Keller, 2001:31; O'Brien, 2006:241). To host a MSE is viewed as a clear demonstration that a city has made it onto the world-stage (Whitelegg, 2000:803). Host cities can enhance, promote or re-create their image or brand (Rogerson, 2009:337). In the context of places, a destination's image is defined as an individual's mental representation of knowledge (beliefs), feelings, and overall perception of a particular destination (Florek *et al.*, 2008:202). Some SA host cities will attempt to get their names on the world map with iconic signature architecture in the new stadiums (Du Plessis & Maennig, 2009:67), because the stadiums where the matches are held is the core product of the event; this is where the excitement culminates (Florek *et al.*, 2008:202). Given the capacity to draw visitors it has become a prominent component of many economic development plans (Pillay & Bass, 2008:329). In addition, victories from MSEs and the colourful displays of national identity often boost national pride and passion (Florek *et al.*, 2008:204; Frew & McGillivray, 2008:188; Pillay & Bass, 2008:332).

The success SA wishes to attain is in the feel-good utility, and thus the longer term intangible benefit of reducing the widespread legacy of Afro-pessimism, by proving that it can manage the event to world-standards (Czeglédy, 2009:294). This cannot be done through marketing campaigns, but only through lived experiences of the event (Du Plessis & Maennig, 2009:66- 68; Pillay *et al.* 2009:15). Events are experience goods and demand increases after the first consumption, if the destination delivers on the desired experience (Bresler, 2010:29), since the propensity to consume is influenced predominantly by the ability to sample or interact with a product before purchase (Williams, 2006:486).

However, neither the short term nor the long term growth benefits may be realised (Whitson, 2004; Pillay & Bass, 2008). Crompton (1995) argues that the validity of many economic studies with respect to the benefit of hosting sport events is unreliable. This is confirmed for the 2010 FWC, by Tomlinson (2009:33), but Lee and Taylor (2005:596-602) conclude that measuring all the economic impacts associated with a MSE is an impossible task. There are also risks on the enterprise level. For example, accommodation occupancy eight weeks before and after a MSE may be down compared to the same time the previous year, as was the case in Germany in 2006 (Du Plessis & Maennig, 2009:68) A study by Grant Thornton and SA Tourism Services Association (SATSA), among 129 local and 107 overseas tour operators, and 13 specialist Africa tourism retailers, also ascertained fear

about displaced business and disrupted supply as a result of the 2010 FWC, and only 56% of SA-based operators thought the event would be good for their business (*Now Media*, 2009:27). Hosting a MSE may also not translate into image enhancement that translate into tourist visitation (Smith, 2005:227). A MSE may have profound negative impacts from a tourist perspective as it may result in problems such as; traffic congestion, difficulties of law enforcement, and increased crime (Keller, 2001:40). Negative impacts are often ignored prior to hosting a mega-event while glorifying the expected benefits (Kim *et al.*, 2006:88). To limit the possibility of creating a

negative image, it is necessary to ascertain what motivate visitors to attend the event, and their view on SA's ability and readiness to host the 2010 FWC.

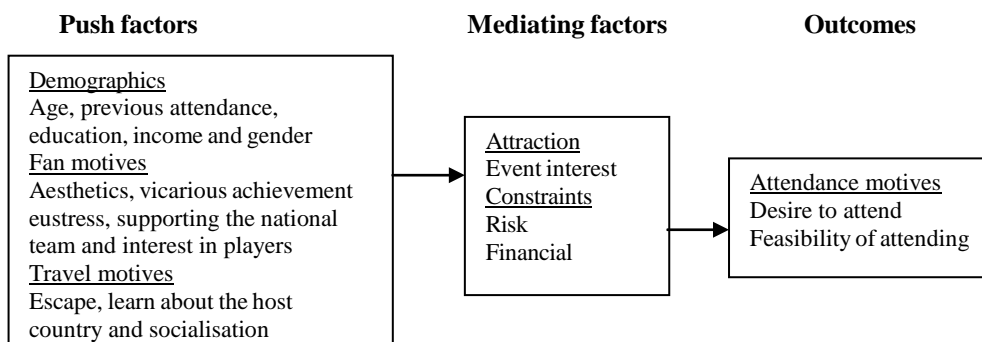
MOTIVES OF SPORT TOURISTS TO ATTEND A MEGA-EVENT

The worldwide popularity of MSEs has substantially increased tourists' desire to watch, or do sport (Green & Chalip, 1998:276). Soccer has developed into the most loved and practiced sport, with about 16 million people playing regularly in FIFA sponsored matches, but the interests of fans are overlooked (Madeiro, 2007:287-289). Visitation to MSEs is stimulated by the attention it attracts through the media, and the appeal of the specific event as well as the desire to learn and experience the culture of the destination (Funk *et al.*, 2009:45). The event success is largely driven by the visitors it expects to attract (Kim & Chalip, 2004:695; Eichhorn & Sham, 2009). However, estimating visitation is not an easy task. Six months prior to the 2010 FWC, 450 000 international tourists were expected (Jordaan, 2010:20), but a week before the games the estimate dropped to 228 519 (Visser, 2010:6). The same happened in 2002, when the actual international arrivals of 403 466, during the period of the FWC, was 37% less than the 640 000 predicted, and of these only 57.7% (232 800) were sport tourists (Lee & Taylor, 2005:599, 601).

Travel intentions are influenced by pull and push factors which shape tourist motivations (Crompton & McKay, 1997:425; Galloway, 2002:582; Yoon & Uysal, 2005:54; Funk *et al.*, 2009:42,43). *Pull* factors are mainly related to the attractiveness of a given destination and tangible characteristics such as beaches, accommodation, recreational facilities, cultural and historical resources, and *push* factors refer to the intangible, intrinsic desires of the individual traveller, e.g. the desire to escape, rest and relaxation, adventure, health or prestige (Kozak, 2002:222). However, Kim and Chalip (2004:696) argue that motivation is an insufficient basis for understanding the drivers of sport event attendance. They claim the most common response obtained by sport motivation researchers, why visitors attend, is that it is *fun*, but fun explains nothing; the relationships between motives and behaviour are complexly determined (Crompton & McKay, 1997:427; Kozak, 2002:222; Funk *et al.*, 2009:48). Kim and Chalip (2004:696) explain why demographic characteristics such as income, age and gender, also need to be included to predict the likelihood of travelling to a sport event. In addition, the general atmosphere, including various symbols and decorations also play a role in predicting audience interest, because the festivities that surround an event must be experienced in situ (Kim & Chalip, 2004:697).

Constraints, such as monetary costs (Florek *et al.*, 2008:209) and risks (particularly health and safety) are inhibitors to travel; even among tourists who are aficionados of the sport for

which they would travel. Funk *et al.* (2009:43) explain that constraints are encountered sequential in a hierarchy, starting internally (from individual psychological states), moving to the interpersonal (inability to find partners to participate) and finally externally (the availability of time and resources). These constraints interact with motives to attend and modify behaviour; rather watch the matches on television (Funk *et al.*, 2009:50). The conceptual model developed by Kim and Chalip (2004:698) regarding MSE attendance, is found to be the most relevant to this study and is depicted in Figure 1.



Source: Kim and Chalip (2004: 698)

FIGURE 1. EVENT INTEREST AND INTENT TO ATTEND

Besides demographic variables that influence the attendance of an event such as the FWC; there are five other types: fan motives, travel motives, event interest, travel constraints and attendance intentions. Fan motives are multidimensional which include aesthetic experience (beauty and grace of soccer), vicarious achievement (sense of personal achievement, or status a spectator feels when his team wins), eustress (stimulation and arousal from watching soccer), interest in players (fan of one or more players) and identification with the national team (degree to which spectators consider themselves to be a fan). The event interest captures the celebratory atmosphere that is common to mega-events. The festival surrounding an event is one of its key appeals to attendees, and the aspect that media coverage is least able to capture (Kim & Chalip, 2004:703).

In essence, sport fans seek intensity and novelty of experience, referred to as sensation seeking or hyper-experiences for the sake of their varied, novel and complex sensations (Galloway, 2002:582), as well as their promised cultural cache and status value (Frew & McGillivray, 2008:181). The FWC merely facilitates the quest for these intense experiences but turn to the spectator to create the event *content* (Frew & McGillivray, 2008:182). They must create the atmosphere at the stadium which is influenced by the intensity of their emotional expression. This is dependent on the personality types of the spectators, in particular by their degree of extraversion (Eichhorn & Sham, 2009:2). Extraversion determines if one feels enthusiastic and active and hence, is willing to cheer. Due to a negative correlation between the intensity of emotional expression and income, tickets need to be affordable. Setting high ticket prices drives out high-quality fans that are willing to cheer, and leads to a loss in revenue (Eichhorn & Sham, 2009:2).

Green and Chalip (1998:276) suggest that the flow of tourists to sport events is equivalent

to the historic religious pilgrimage and argue that spectators come together to celebrate the subculture they share. It is a statement about who they are; a shared and valued identity. Sport events create situations, or extended occasions in encapsulated spaces, for spectators to affirm their personal identity, for socialisation and camaraderie which is heightened by the density of the players and the supporters before, during and after the tournament (Green & Chalip, 1998:283,285). MSEs provide opportunities for the creation of stories to cultivate an on- going culture. Attendees/fans occupy an ephemeral, causal celebrity status (Frew &

McGillivray, 2008:190), and at the very least, can be emotionally in close proximity to hundreds of others, not necessarily like themselves, but sharing a desire to be right there, right now (Frew & McGillivray, 2008:183). This suggests that social elements require particular attention when planning an event. In marketing terms the tangible product needs to be developed with reference to the core benefit (Middleton *et al.*, 2009:128). People do not buy products or services; they buy the expectation of benefits which satisfy a need. The fundamental attraction is neither the place nor its people; the fundamental attraction is the players and other spectators that participate (Green & Chalip, 1998:286). What makes the event *good* and what makes it *fun* is the opportunity it affords the spectators to escape the conventionality of their daily lives, an illusion of freedom to be *other* (Frew & McGillivray, 2008:192) by celebrating the subculture they uniquely share. These findings are confirmed by King (2002:107) who expressed the opinion that travel is increasingly more about experiences, fulfilment and rejuvenation than about *places* and *things*. This is especially true for MSEs which are increasingly independent of the country in which they are staged (Müller & Moesch, 2010:38). The Destination Marketing Organisation's (DMO) role is to facilitate the connection between the visitor and the experience they are seeking; to convert tourism products into relevant tourism experiences (Middleton *et al.*, 2009:128).

SPORT TOURIST SPENDING AND ACTIVITY PATTERNS

Only a small portion of the total revenue from MSEs comes from ticket sales (Davies, 2009:34). Sport tourists typically spend money in nine categories; transportation, accommodation, food and beverage, recreation/entertainment, tours/sightseeing, game tickets, retail shopping, services (such as laundry), and miscellaneous (Daniels *et al.*, 2004:185,186; Lee & Taylor, 2005:598). How sport tourists spend the money will depend on the nature of the event, the nature of the tourists, and the characteristics of the host economy. For example, the expenditure by international FWC tourists to South Korea was 1.8 times more than that of ordinary international tourists (Lee & Taylor, 2005:599). Similarly, the perceived attractiveness of a destination (i.e. alternative attractions, climate, proximity to relatives, friends, unique accommodation) may attract larger groups, spending more. Research by Tang and Turco (2001:33) also revealed that tourists who travel greater distances to an event typically spend more than tourists from nearer the host economy and that first-time event visitors spend considerably more than repeat visitors. South Africa expects many international visitors to the FWC who will probably be first-time visitors spending more than domestic tourists.

With respect to activity patterns, first-time visitors spend more time at the attraction and visit more attractions; they are inclined to explore more possibilities depending on the available information (Kemperman *et al.*, 2003:1-6). Many other exogenous factors may

also influence activity patterns such as economic considerations, accessibility and the reputation of the destination. For example, SA has gained a reputation for being an unsafe place to go on holiday; especially going out after dark and using public transport, and this will limit tourist activities (George, 2003:576,581). George purports that visitors are more susceptible to victimisation than local residents, as criminals regard them an easy target, and such crimes are highly publicised. Soccer fans from Cameroon are also hesitant to visit SA because of the negative image created by xenophobic attacks (Tichaawa & Swart, 2010). Visser (2010:7) gives an estimate of what different types of international tourists might spend attending the

2010 FWC. The ordinary fan may spend about R41 302 (R15 000 on services including hospitalisation, R10 984 on travel including the air-ticket to SA, R7 596 on accommodation, R5 000 on food and beverage including retail, and R2 722 on tickets).

THE CHALLENGES IN DELIVERING THE DESIRED EXPERIENCE

Hosting the 2010 FWC has the potential to raise SA's profile as a tourist destination, if it delivers on the desired experience (Williams, 2006:493; Kersting, 2010). This is in line with the broader objectives for tourism in SA, namely to ensure a lasting social legacy, to advance the competitiveness agenda, to maximise tourism value during the event, and to maximise value for SA after the event (*SA Tourism*, 2008:91-97). The perception of visitors are formed by the levels of awareness and the image of the host destination as well as external information provided by the media and government agencies who is likely to interact with individual factors, including visitors' own knowledge, values, and past experiences with similar events, to shape visitors' initial perceptions prior to the event (Kim *et al.*, 2006:87), which ultimately serve as a reference point for new encounters such as attending the FWC.

SA Tourism (2008:97) conceded to the following 10 challenges in hosting the 2010 FWC: 1) poor access to tourism information; 2) insufficient accommodation; 3) insufficient compelling attractions and activities; 4) inadequate service levels and skills shortage; 5) inadequate public transport; 6) insufficient focus on tourist safety and security; 7) limited institutional capacity; 8) managing expectations; 9) demand management; and 10) displacement of general tourists around the event. South Africa share in many respects similar challenges than Atlanta, when it was about to host the 1996 Olympics (Whitelegg, 2000:803,804). According to Whitelegg, Atlanta was not quite famous yet. It faced a lack of self-confidence, and was still lacking in social and cultural status. It could not match other cities in America; let alone foreign cities in terms of global recognition. With respect to the image the city had to present, there was certain incongruity with respect to the history, especially the part concerning race relations and the transformative role; the shift in political power to African Americans, with the concomitant channelling of economic power through private-public agencies and lobby groups (Whitelegg, 2000:804). Lastly, there were problems inherent within the high reliance on media coverage; Atlanta was often presented in the world media as something approaching disaster.

The support of the host community is also important for success (Kim & Petrick, 2005:31,32; Gursoy & Kendall, 2006:604). This does not seem to be a problem for SA, since a public opinion survey confirmed that residents were proud of SA hosting the FWC,

and they believed SA was ready to do so (FIFA, 2009:4). This survey by *Sport & Markt*, commissioned by FIFA, was the second in a series of six. The key findings were: 83% of the respondents felt SA will be ready to host the 2010 Cup, and 94% were proud that SA is hosting the event, 89% said it would bring long term benefits to the country, 92% believed it will lead to an upgrade in infrastructure, notably public transport, roads and telecommunications, and 86% said their interest were unaffected by the performance of the national team. Whilst 90% believed it would improve SA's image abroad, 59% had a concern for inflated prices, and 58% thought crime would be a concern for visitors, and the same percentage anticipate increased congestion problems.

A relevant study by Martins (2003) is cited for comparative purposes. Martins ascertained the impression of SA as a host to the World Summit on Sustainable Development (WSSD) held in 2002, attended by 31 127 international tourists from 205 countries and 49 508 domestic tourists. The results from 422 respondents are reflected in Table 1.

TABLE 1: PERCEPTION OF SOUTH AFRICA AS A DESTINATION AND MEGA-EVENT HOST

Aspects of delegates' experience during WSSD	Very poor	Poor	Satisfactory	Good	Excellent	Don't know/NA
Organisation	2.4	13.0	35.1	36.7	7.6	5.2
Information on	3.6	22.5	28.9	33.4	8.1	3.6
Personal service	0.7	6.2	18.7	46.4	23.7	4.2
Transport in South Africa	8.3	15.6	21.1	32.9	10.9	11.2
Value for money	3.1	7.8	22.3	39.3	15.4	12.1
Safety and security	6.4	8.3	24.2	40.5	15.6	5.0
Communication systems	2.8	11.4	29.1	38.4	10.7	7.6
Accommodation quality	1.4	5.0	25.1	41.5	17.8	9.2
Pre- and during summit leisure activities	1.2	5.7	16.8	24.2	6.2	46.0
Hospitality and friendliness	0.5	1.2	9.7	31.3	53.3	4.0

Source: Martins, 2003:7.

The most positive rating (good and excellent combined) were received for hospitality and friendliness (84.6%), and the most negative rating (very poor and poor combined) for information on the WSSD (26.1%). Respondents were generally satisfied with the functions of the United Nations (UN) (organisation, 44.3% and information, 41.5%), infrastructure (transport, 43.8%, communication systems, 49.1%, and accommodation quality, 59.3%) and public relations (personal service, 70.1%, hospitality and friendliness, 84.6%) at the summit. Most respondents (73.5%) indicated that they would like to come back to SA on holiday and three quarters (75.4%) that they would recommend SA to friends, relatives and colleagues at home as a holiday destination (Martins, 2003:9).

The findings of Martins are consistent with the results of a survey commissioned by Cape Town Tourism (CTT) during the FIFA Confederations Cup, SA 2009 (FCC) (CTT, 2009). The majority (63%) of respondents (323) stated that they were returning to SA for the 2010 FWC and only one said that he would not recommend SA for a holiday. They were international tourists attending the games, and were interviewed in Johannesburg, Pretoria, Rustenburg and Cape Town at the stadiums and hotels where they were staying. Most of the respondents were between 19 and 45 years of age (slightly more fell in the range 19 to 29

years), and they stayed in SA for 14 days. Far too few of them felt safe using public transport in Johannesburg and only 15% believed *value for money* to be an attractive aspect of SA.

Providing value for money is indeed a challenge for SA. Grant Thornton and SATSA established that (in the opinion of 129 SA-based tour operators), *value for money experiences* is the main consideration (91%) for travellers considering SA as a destination, and that *crime reduction* (78%) and *better priced air access* would help increase business (Now Media, 2009:26). About a decade ago, *value for money* was considered to be a strength (96.77%) of SA in terms of competitiveness as a tourist destination, among 150 inbound tour operators

(Saayman & Du Plessis, 2003:60). The fact that SA is a long haul destination was also seen as a weakness (70%). This is conceded by SA Tourism (2008:45-47) as they did not consider MSEs a core market for them, given SA's geography and the relative strength of Europe in this market; it is classified as an opportunistic, once-off marketing opportunity.

THE EMPIRICAL STUDY: PURPOSE, RESEARCH METHOD AND SAMPLE

The purpose of the research was to ascertain what needs to be considered from a sport tourist perspective to render FIFA 2010 a success and would prove that SA can host this mega-event according to world-standards, and if not, what had to be improved upon prior to the event. The study is based on secondary sources, which are supplemented by an empirical study. It is predominantly an exploratory study, and the sample for the empirical study was a non- probability, convenience sample of potential visitors to the 2010 FWC, namely spectators at the semi-finals of the FCC, SA 2009. Respondents were interviewed in queues entering Ellis Park stadium in Johannesburg on 25 June. Field workers approached them to determine their ability to communicate in English and willingness to participate in the study. A total of 205 persons took part in the study and the composition is reflected in Table 2. The majority were comfortable to be interviewed in English (197 or 96.1%). The questionnaire was developed in consultation with marketing officials from a DMO and a member of the SA Marketing Research Association (SAMRA). It was piloted close to FIFA's offices in Sandton Shopping Centre, on 22 June amongst 100 persons, who either displayed the FIFA brand on their clothing, or were tourists to Johannesburg. Improvements were subsequently made; mainly to direct specific questions to either domestic or international tourists.

TABLE 2: COMPOSITION OF THE SAMPLE (N=205)

Gender	Age (intervals)		Language	No. matches attended		Visit duration (interval/days)		Country of origin		
	%	%		%	%	%	%	%		
Male	82	15-25 20.3	English	21.7	1	41.2	3-5	25.9	SA	18.4
Female	18	26-35	African	16.5	2	21.4	6-8	14.8	Rest Africa	4.5
		36-45								

	46-55	9.7	Oriental	5.4	4	7.0	12-14	18.5	East	5.4
	56-65	1.4	Afrikaans	1.9	5	4.3	15-21	7.4	Americas	5.4
	66 +	1.4	Undiscl.	47.0	6+	9.5	longer	26.0	Undiscl.	55.8

The questions posed were both fixed response and open ended, and can be grouped into three categories. The first encapsulated the demographic and geographic profile of the respondents and included questions about gender, age, first language, matches attended, duration of visit and country of residence. These are disclosed in Table 2. The second category uncovered visitors' perceptions about SA as a host and tourist destination, on a 5-point Likert scale which ranged from strongly disagree (1) to strongly agree (5), and the intentions of international tourists to revisit SA for the 2010 FWC, or recommending it. The results are

reflected in Table 3. The last category of questions elicited their most positive and most negative experience with respect to the event and suggestions for improvement.

TABLE 3: PERCEPTION OF SA AS DESTINATION AND MEGA EVENT HOST

Statement about SA's ability to host a mega event	N	1	2	3	4	5	Weighted ranking %
I believe SA will successfully host 2010 Cup	205	1	3	5	40	156	93.9
I really looked forward to visit SA	73	2	1	3	16	51	91.0
The matches were well organised	204	2	1	11	68	122	90.1
Services provided by the airports are good	19	0	1	1	5	12	89.5
I was impressed by SA as tourist destination	78	0	3	1	25	42	87.2
Services in SA are good	20	1	1	1	5	12	86.0
Services provided by private businesses (accommodation & restaurants) are good	164	2	4	24	52	82	85.4
My perception about SA has changed positively during my stay	83	0	2	11	35	35	84.8
I felt safe in general	202	5	7	24	71	95	84.2
Services by information bureaus are good	56	0	0	13	20	23	83.6
I have heard good things about SA	86	2	4	10	32	38	83.3
It was easy to obtain adequate tourist info.	126	1	9	29	50	37	78.0
Services provided by the public sector such as transport are good	176	7	11	42	52	64	77.7
Transport was well organised & easy to use	192	11	13	42	58	68	70.3

Weighted average	84.1%
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FINDINGS

A brief overview of the most pertinent findings is given. Most of the respondents (82%) were young males. Almost two thirds (132 or 63.8%) were 35 years and younger and the minority (6 or 2.8%) older than 55. English was the first language for 21.7% of the 205 visitors. The majority (41.2%) attended only one of the 24 matches. On average respondents attended 2.56 matches during the FCC, SA 2009. It would seem as if the duration of international visitors' stay in SA for the FCC, SA 2009 was about a week. This is similar to the findings of CTT during the same event, and confirms the demographics of the Kim and Chalip (2004) model.

Perception of visitors with respect to South Africa as a host and tourist destination

Visitors were asked to express their opinions on SA's ability to successfully host the 2010 FWC in order to elicit possible risks before the event. A summary of their perceptions is reflected in Table 3. The sample size for statements varies as it consolidates the responses of domestic and international visitors and some applied to the latter only. The highest weighted average of 93.9% was received for the belief expressed by 205 respondents that SA will be able to successfully host the 2010 FWC, and the lowest score, for how well 192 of them believed transport was well organised and easy to use. The average rating of all the statements was a high 84.1%. Respondents perceived the matches to be well organised (90.1%), and the services provided by private businesses (85.4%) to be delivered better than those provided by the public sector (77.7%). In order to validate the findings, respondents were asked to rate their overall experiences during the FCC, SA 2009 on a scale of 1 to 10 where 10 was the highest, and the average rating was 7.84. This is somewhat lower than the weighted average of 84.1% for the individual statements, reported in Table 3. In general the findings elicited what the paper intended to uncover and are congruent with findings of the surveys discussed. A few examples are given:

- *Sport & Markt* (FIFA 2009); SA is ready to successfully host the event.
- Martins (2003); the event was well organised. The transportation and communication was adequate and the general perception of the image of SA was good.

Most positive experience of visitors

Visitors were asked to describe their most positive experience during the FCC, SA 2009 and international tourists if they would come back to SA for the 2010 FWC or recommend visiting SA for the upcoming cup. The purpose was to uncover their emotional feelings; what was *good* and *fun*, as this tells one more about the target market and what is the core product (Green & Chalip, 1998:286; Yoon & Uysal, 2005:54; Middleton, *et al.*, 2009:128). In addition, this question elicits testimonials of promises that are deliverable and if tourists would testify that the legacy of Afro-pessimism had been reduced or not. The positive experiences may be used by DMOs as themes that would render promotional material truthful. It is important to use credible sources and themes to communicate an image that is congruent to presently held images of a destination (Smith, 2005:221).

Coding and analysing of the responses indicated that they could be categorised in two dimensions; the games itself, and SA as a tourist destination. Experiences about the games could be clustered into two themes; affective/emotional or cognitive/technical. The positive emotional experiences about the games were either excitement (eustress) or belonging, which includes identification with the national team. Excitement was described by words such as: “the atmosphere of the games was great, electric, festive and awesome, and the vibe at the stadiums enjoyable and entertaining”. The following words were used by domestic tourists to describe the emotional experience of belonging and patriotism: “Bringing the nation together, the integration of people, having met lots of friendly and helpful people, I am proud of SA, and seeing South Africans united, really getting together”. Identification with soccer and the national team was for some domestic tourists the highlight of being a spectator during the FCC, SA 2009. This was confirmed by words such as: “I was proud of SA going through to

the semi-finals, we are ready for 2010”. For some it was the opportunity to watch international teams such as Italy and Brazil, and to see superstars on the field such as Kaka”.

With respect to the technical service delivery, respondents commented very positively on the organisation of the tournament and the infrastructure, especially the unique and striking stadiums. The smooth delivery and organisation was described by words such as: “Everything was well organised, smooth, smart and glamorous, everyone was working together to ensure success of the tournament, and safety in the stadium was impressive, I think SA has improved, security was tight and disciplined, the park and drive initiative was brilliant”. The most positive experience with respect to SA as a tourist destination was for many international tourists the diversity it offers. SA was considered exceptional. Most (76 or 88.4%) of the international respondents said that they would visit SA again in 2010 for the FWC, for the same reasons as the positive experiences mentioned. All, but one international respondent (85 or 98.8%), indicated that they would recommend SA for the 2010 FWC. For some domestic respondents the most positive experience was the impact the games had for SA. They used words such as: “Showing people our beautiful country, international people bringing in money and saying good things about SA, it made our country better, seeing improvement in service provision, infrastructure and safety”. These testimonials indicate that SA is ready to host the FWC according to world-standards.

The findings eloquently support the secondary sources. A few examples are highlighted:

- The model of Kim and Chalip (2004) was confirmed in regard to push factors (fan and travel motives) and mediating factors (event interest); especially the excitement.
- The core product (Middleton *et al.*, 2009) is the emotional feelings and experiences.
- *Sport & Markt* (FIFA, 2009); domestic tourists are patriotic and support the event.
- CTT (2009); international tourists intend to return and recommend SA.

Most negative experience of visitors

Many risks with respect to hosting the FWC that require attention were uncovered. The crime rate and public transport was the most disappointing experiences. With respect to safety the following words were used: “SA’s crime image is bad, friends got mugged, the Egyptian team that was robbed, security guards wanted bribes to allow us entry into legal

parking spaces”. This must be interpreted alongside the positive experiences in regard safety. With respect to the most negative transport experiences, participants mentioned that: “Public transport was disastrous, there were insufficient taxis after the match, it was difficult and a nightmare to find parking”. It was mentioned that “Congestion, queues, waiting for the *Gauride* as well as the signage, and park and ride should be improved upon”. Smoking in the stands and the *vuvuzelas* were considered the most outstanding nuisance by many international tourists. Others mentioned the empty stands, and lack of support from volunteers. Some said that taxi drivers tried to get too much money, the pricing of tickets and food at the stadium were too high; almost an exploitation. Transportation and internet access was also described as very expensive. Suggestions for improvements centred on these negative experiences. Many participants experienced nothing negative.

The risks described by respondents confirmed all those mentioned from the literature study as well as the necessity to ascertain what is expected by visitors to reduce the widespread legacy of Afro-pessimism, if SA wants to prove that it can manage the event to world-standards.

MANAGEMENT IMPLICATIONS AND CONCLUDING REMARKS

The purpose of this study was to ascertain from a sport tourist perspective if SA can host the 2010 FWC according to world-standards, and if not, what must be improved upon prior to the event to minimise risk. The empirical study supports the secondary sources in that it elicited many known risks namely; insufficient focus on tourist safety and security, inadequate public transport, value for money, and skills shortage in the public sector (Martins, 2003:7; Saayman & Du Plessis, 2003:60; *SA Tourism*, 2008:97; CTT, 2009:1; *Now Media*, 2009:29). SA must get the basics right in terms of world-class facilities and services if it wants to reduce the legacy of Afro-pessimism.

An overwhelming 93.9% of respondents believed SA will successfully host the FWC which is more positive than the findings of the *Sport & Markt* study (FIFA, 2009:4), where 83% felt their country will be ready to host it. The findings are consistent with those of CTT (2009) in that respondents from both were predominantly young males, and international visitors stayed in SA between seven and 14 days; it supports the demographic push factors of the Kim and Chalip (2004) model. FIFA also succeeded in providing entertainment; the experience of respondents was very emotional and generated excitement and a sense of belonging and thus achieved one of the SA Tourism’s objectives, namely to ensure a lasting social legacy. The results further confirms that the benefits spectators seeked were all delivered in terms of *fan* motives; namely eustress, supporting the national team, interest in players and aesthetics. The fundamental satisfaction was derived from the mediating factor, namely the players and spectators of the event itself, not the place. This is in line with the findings of Green and Chalip (1998:286), Florek *et al.* (2008) and Frew and McGillivray (2008) that spectators come together to affirm their personal identity, for socialisation and camaraderie, as well as marketing theory (Middleton *et al.*, 2009:128) and the opinion of King (2002:108) that tourists segment themselves in terms of who they are and the experience they seek. Respondents in both this and the CTT study were generally happy with the proceedings of the tournament, as was the case in the study by Martins (2003:7) about SA hosting the WSSD, but public transport remained to be a challenge as was

elicited in the *Sport & Markt* survey (FIFA 2009:5). This perception tarnish the image of SA as a tourist destination (Martins, 2003:7; Saayman & Du Plessis, 2003:60; CTT, 2009:8) and requires serious interventions before the 2010 FWC.

Event organisers make visitors feel safe at events, even though SA suffers from the general perception of being crime ridden (George, 2003:576; Saayman & Du Plessis, 2003:60; FIFA, 2009:5). International respondents would recommend SA as a tourist destination, and many intend to come back for the 2010 FWC; similar to the findings by Martins (2003) and CTT (2009). Recommendation assumes travel satisfaction, and leads to destination loyalty (Yoon & Uysal, 2005:54). However, research also indicates that destination revisit intention based on satisfaction is a short-term intention, because of the tendency to seek new and adventurous experiences (Jang & Feng, 2007:586). A limitation of the study is that the sample was mostly

domestic tourists from Gauteng, whilst 75% is expected to be international visitors for the FWC (Cornelissen, 2009:148).

In conclusion, the contribution of this article lies in synthesising secondary and primary sources from a sport tourist perspective to elucidate challenges for SA in hosting the 2010 FWC. What makes this study unique is that it was done prior to a MSE to describe a host's readiness to do so; it is a first for SA who has to learn from the experience of others (Van Lill, 2010), and this article contextualised international literature on hosting MSEs for the 2010 FWC. The findings confirmed secondary sources with respect to both relevant theory and SA's readiness to host the FWC. Negative experiences can be used to solve problems before the event and positive ones to promote experiences that are deliverable. The major challenge lies in the improvement of public services such as transport, safety and security, to provide value for money, and manage the expectations that lead up to the FWC.

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A CASE STUDY OF PHYSICAL ACTIVITY LEVELS AND MEDICAL EXPENDITURE OF THE KOREAN MIDDLE AGED

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ABSTRACT

The author aimed to examine the relationship between physical activity levels and individuals' actual medical expenses in South Korea. Of the 250 middle-aged subjects randomly selected by a multi-staged cluster sampling technique, 211 respondents completed questionnaires. Looking only at total monthly spending for physicians and drug costs attributable to the illness, the figures were ₩6810.04 (US\$5.34 in 2009) for active persons, ₩17076.11 (US\$13.38 in 2009) for acceptable persons, and ₩24835.57 (US\$19.46 in 2009) for inactive persons. The mean differences of active persons and inactive persons with regard to total monthly direct medical expenditures were ₩18,025.53 (US\$14.12 in 2009), which means that improvement in physical activity levels from inactive to active could lead to a US\$14.12 reduction in monthly direct medical expenditures. The findings from this study indicate that a high level of physical activity based on frequency, duration, and intensity has significant effects on the likelihood of decreasing direct medical expenditures. As a consequence, health care and public health policies that promote a high level of physical activity for individuals aged 40 to 80 years would be good for the government to prevent rising medical expenditures in South Korea.

Keywords: Health benefits; Physical activity level; Medical expenditure; Middle-aged.

INTRODUCTION

With the several amendments of the National Health Insurance Act, the integration of the health insurance system to include all insured persons such as employees and the self-employed was accomplished (MHW, 2003). Because the health insurance system in South Korea is compulsory for everyone living in South Korea, the government should cover almost all medical treatment and the medical providers' fees. However, South Korea has experienced a rapid increase in healthcare spending over the past 20 years. According to the data, public spending on healthcare on a per capita basis has expanded at a 10.1% rate since 1981, well above the Organisation for Economic Cooperation and Development's (OECD) average of 3.6% (WHO, 2005). It was projected that the increase of public healthcare spending will be 12% of the Gross Domestic Product (GDP) by 2050, which would make it the highest in the OECD (KIHSA, 2008).

The rise in public healthcare spending has become a great challenge in South Korea. The

reasons why medical costs are rising is because of a variety of factors such as the increasing number of senior citizens, reducing birth rates, unhealthy lifestyles and extended insurance coverage. Among these factors, the increase in chronic diseases and unhealthy behaviours are reasons for skyrocketing costs in public health care spending. The impact of preventative health practices such as regular exercise and physical activity on healthcare costs has received considerable attention lately. Therefore, the purpose of this study is to examine the relationship between physical activity levels and individuals' actual medical expenses in Korea.

BACKGROUND

Keeping physically fit or active can prevent major illnesses and is the foundation for a healthier lifestyle. The Korean government recommends that adults should do at least 30 minutes of moderate intensity activity on three or more days of the week. It is a well-known fact that adding regular physical activity to one's daily living improves health and well-being. One of the most important benefits of physical activity or exercise is that it can decrease a person's risk of developing cardiovascular disease, hypertension, diabetes and colon cancer (Morris, 1994; Kruger & Kohl, 2008; USDHHS, 2008). Being physically active has also been proven to provide mental and psychological health. Many studies indicated that people who exercise regularly benefit from a positive boost in mood and lower rates of depression (Ekkekakis, 2003; Daley & Welch, 2004; Bartholomew *et al.*, 2005). In addition, regular physical activity reduces the overall risk of dying prematurely from any cause. Barnes (2007) estimated that five times as many Americans die from being inactive than from losing their lives in car accidents. This data provide considerable evidence that a definite positive relationship exists between regular physical activity or exercise and healthy living.

Since being physically fit helps people live healthy lives, it is important to make them participate in physical activity or exercise as a part of their daily lives and to continue as they grow older. The research literature suggests that the more often people are active, the more likely they are to experience the health benefits that accompanies physical activity (Cho, 2004; Nam *et al.*, 2009). In other words, by increasing the amount of physical activity or level of

physical activity, people will increase their health benefits. Much of the literature concerning regular participation in physical activity or physical activity levels is influenced by frequency duration, intensity of physical activity and the mode in which the activities occur. Health professionals and researchers recommend that at least 30 minutes of moderate intensity physical activity on three or more days are required to attain health benefits. This is one of the national physical activity guidelines for everyone (NCSA, 2007).

At the same time, there is a growing concern about low levels of physical activity in many countries (WHO, 2002; Sjöström *et al.*, 2006). Especially, in a recent review of physical inactivity and the societal costs, physical inactivity is related most directly to the public health burden. Since the positive relationship between regular physical activity and good health has been recognised as an important indicator to determine healthy lifestyles, researchers in public health, social welfare and medical areas have found that a physical inactive life contributes to higher medical costs (Andreyeva & Sturm, 2006).

Due to the positive association with regular exercise or physical activity and healthy lifestyles, many researchers in developed countries have studied the relationship between exercise or physical activity and medical expenditures, the effects of physical activity on economic burden and the cost-effectiveness of exercise (Katzmarzyk *et al.*, 2000; Wang *et al.*, 2004; Allender *et al.*, 2007). Pratt *et al.* (2000) reported that the average annual direct medical costs are US\$1019 for those who are regularly physically active compared with US\$1349 for those who report being inactive. Wang *et al.* (2004) reported that the total medical expenditure of the 7.3 million persons with cardiovascular diseases in the United States of America (USA) in 1996 was US\$41.3 billion and that the expenditure of US\$5.39 billion (13.1%) was associated with physical inactivity. The estimated cost per inactive person was approximately US\$430 (US\$ in 2004). Katzmarzyk *et al.* (2000) investigated physical activity levels and health care costs among Canadians (≥ 18 years) in 1997. It was revealed that the healthcare costs directly attributable to physical inactivity in 1999 were estimated at US\$2.12 billion (2.5% of the 1999 total direct healthcare costs). The estimated cost per inactive person was approximately US\$170 (US\$ in 2004). Allender *et al.* (2007) investigated the burden of ill- health related to physical inactivity in the United Kingdom (UK) and the associated direct costs to the National Health Service. They estimated that £6.48 billion of the 2002 National Health Service costs were associated with the five diseases defined by the World Health Organisation (WHO). This would suggest an estimated cost of US\$70 (US\$ in 2004) per inactive person.

Several studies have been undertaken to estimate the economic value of regular exercise or physical activity by utilising retrospective database analysis and extensive literature reviews. The findings imply general agreement that regular exercise or physical activity is attributable to reducing direct health-care costs. Considering the fact that the studies on the positive effects of being physically active or regular exercise on medical expenditure have been conducted in developed countries, there is a considerable public health burden due to the rise in the medical costs in developing countries. Studies addressing the direct medical expenditures due to physical inactivity and economic value due to physical inactivity are required. Therefore, the study on the relationship between physical activity levels and medical expenditures in a developing country, such as South Korea, is of interest.

METHODS

Participants

The sample included South Korean men and women, aged over 40 years and older, who participated in leisure activities provided by the community centres in Daegu City, South Korea. A multi-staged cluster sampling technique was used to select representative centres from the city of Daegu. Daegu city has eight census tracts designated by the Statistics of South Korea in the 2008 census. The eight clusters of census tracts were the representative areas used in this study (KNSO, 2008).

The community centres in South Korea consist of a senior centre, a residential culture centre, and a sport complex. The authors randomly selected two census tracts from the eight tracts. One senior centre, one residential culture centre, and one sport centre were randomly selected from the chosen tract. Two classes were randomly selected from each of the centres. Each

class had between 20-30 participants. Of the 250 questionnaires distributed, a total of 230 questionnaires were returned of which 19 questionnaires were unusable because of duplicate or incomplete responses. This left 211 completed questionnaires with a return rate of 84.4%. The respondents ranged in age from 40 to 80 years. The subjects who had functional limitation or chronic conditions interfering with physical activity were excluded from the study.

Instruments

The questionnaire consists of three sections: demographics, physical activity level and medical expenditure.

Physical activity level: This section of the questionnaire consisted of a brief four-item query of usual leisure time physical activity based on the studies of Cho (2004) and Nam *et al.* (2009). The first question was “considering the previous week, did you participate in any of the following kinds of physical activities (for example, walking, rhythmical exercise/dancing, cycling, basketball, swimming, badminton, tennis, etc.)?” The second question was “during a week, how often do you participate in the activity in your free time?” The frequency of physical activity was categorised as „almost every day“, „4-5 days/week“, „3 days/week“, „1-2 days/week“, and „sometimes“. “How intensely do you breathe when you participate in the activity?” served as the third question. The intensity of physical activity was categorised as „very heavy breathing“, „heavy breathing“, „moderate breathing“, „light breathing“, and „very light breathing“. The last question was “how long do you do the activity in your free time?” The duration of physical activity was categorised as „almost 10 minutes“, „20 minutes“, „30 minutes“, „40 minutes“, and „more than 50 minutes“.

A 5-point Likert-type response format was used with values ranging from 1 to 5. To determine physical activity levels, a score was obtained by multiplying the responses on each item. The maximum and minimum scores were „125“ and „1“ respectively. The physical activity levels were divided into five categories with specific cut-offs: „high active level“ (101-125), „active level“ (100-64), „acceptable level“ (63-27), „low active level“ (26-18), and

„inactive level“ (17-8). Higher scores indicated higher physical activity levels. The average inter-item correlation for the physical activity level questionnaire was 0.706.

Medical expenditure: A self-reported questionnaire based on the data of the National Health Insurance Corporation (NHIC, 2008) was developed to obtain information on conditions and illness, hospital outpatient department visits, community health and medical care centre visits and medical expenditures. Respondents were asked to report health care visits and direct medical expenditures including physician and drug costs for the last one month.

Pilot testing, content and internal validity: A pilot study was conducted with 25 Koreans. The purpose of this pilot study was to test the procedures to be used to conduct the survey and to ensure respondents understood what they were being asked. The content validity required several specific procedures. Firstly, an item pool was generated; secondly, the instrument was constructed and then evaluated by the authors; thirdly, the instrument was sent to a panel of recognised experts in the field of recreation and medical and social services. The selected experts were asked to evaluate and comment on the initial questionnaire with regard to: the

clarity of questions; the appropriateness of the items included within each question; and the overall applicability of the survey instrument. Finally, comments were noted and appropriate revisions were made.

Data collection

Copies of the survey questionnaires were distributed to each of the 250 participants in community centres from the three different centres in Daegu, South Korea. To increase the rate of response to the questionnaire, letters were mailed to coordinators. All coordinators responded with their willingness to help participants to complete the questionnaire. Dates were set with the coordinators for meeting with the participants at the different centres. The written consent forms and questionnaires were distributed to participants by the researchers. The participants were informed that participation in the study was voluntary and that they were free to withdraw from the study at any time. After completion of the consent forms and questionnaires, they were collected.

Data analysis

Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS 10.0)/PC Windows computer software. Descriptive statistics were used to analyse physical activity levels and medical expenditures. In order to test differences in direct medical expenditures of hospital outpatient visits and community health and medical service centre visits among physical activity levels, data was analysed using a One-way Analysis of Variance (ANOVA). A significance level of $p < 0.05$ was accepted as significant differences.

RESULTS

Of the respondents, 57.3% replied that they did not go to the outpatient department with health conditions or problems caused during the previous one-month period and 47.2% reported that they did go to the outpatient department with health conditions during the last

month (Table 1). The most frequently reported health conditions or problems were diseases of the musculoskeletal system and connective tissue (21.3%) and diseases of the respiratory system (14.7%). Of the respondents, 72.0% did not go to the community health and medical service centre with health conditions or problem during the last month and 28.0% reported that they went to the community health and medical service centre with health problems. The most frequently reported diseases were “other intestinal infectious diseases” (12.8%) and “certain infectious and parasitic diseases” (5.7%) (Table 1).

Table 2 provides the results for average monthly medical expenditures by physical activity levels among individuals aged 40 to 80 years. Although physical activity levels were classified into five levels (high active level, active level, acceptable level, low active level, and inactive level), the five levels were combined into three levels (active level, acceptable level, inactive level) because of the small sample. A one-way analysis of variance was conducted to evaluate the differences in outpatient care expenditures by physical activity levels. The ANOVA produced significant results with $F(2, 208) = 3.20, p = 0.04$. Follow-up tests were conducted to evaluate pair-wise differences among the means. There were significant differences in the means between the active and inactive level, but no significant differences among the other physical activity levels. The analysis also showed significant

differences in community health and medical care expenditures among physical activity levels, $F(2, 208) = 3.04, p = 0.05$. Follow-up tests were conducted to evaluate pair-wise differences among the means. There were significant differences in the means between the active and inactive levels, but no significant differences among the other physical activity levels.

TABLE 1: REASONS FOR VISITS TO THE OUTPATIENT DEPARTMENT AND THE COMMUNITY HEALTH AND MEDICAL SERVICE CENTRE DURING ONE MONTH

Centres	Diseases	N (%)
Out-patient Department visit (N=211)	None	121(57.3)
	Certain infectious and parasitic diseases	1(0.5)
	Diseases of the skin and subcutaneous tissue	1(0.5)
	Diseases of the ear and mastoid process	1(0.5)
	Diseases of the eye and adnexa	1(0.5)
	Diseases of the circulatory system	6(2.8)
	Diseases of the respiratory system	31(14.7)
	Diseases of the digestive system	3(1.4)
	Diseases of the genitourinary system	1(0.5)
	Diseases of the musculoskeletal system and connective tissue	45(21.3)

Community Health and Medical Service Centre visit (N=211)	None	152(72.0)
	Certain infectious and parasitic diseases	12(5.7)
	Diarrhoea and gastroenteritis of presumed infectious origin	8(3.7)
	Other intestinal infectious diseases	27(12.8)
	Respiratory tuberculosis	3(1.4)
	Other tuberculosis	1(0.5)
	Diseases of the digestive system	8(3.8)

The ANOVA was conducted to evaluate the differences in total medical expenditures by physical activity levels. The ANOVA was significant, $F(2, 208) = 3.18, p = 0.04$. Follow-up tests were conducted to evaluate pair-wise differences among the means. There were significant differences in the means between the active and inactive levels, but no significant differences among the other physical activity levels. The high level physical activity group showed a greater decrease in medical expenditures in comparison to the low level physical activity group.

TABLE 2: MEDICAL EXPENDITURES (₩Korean Won) DURING ONE MONTH BY PHYSICAL ACTIVITY LEVELS

Centre	Physical activity levels	N	M	SD	F	P	Post-Hoc
Outpatient care	Inactive	95	22006.10	41713.69	3.20	.04	Low < High
	Acceptable	67	14661.19	41309.83			
	Active	49	5826.53	9400.85			
Community Health and Medical Centre	Inactive	95	2829.47	5596.88	3.04	.05	Low < High
	Acceptable	67	2414.92	4252.45			
	Active	49	983.67	1970.01			
Total medical expenditure	Inactive	95	24835.57	47310.57	3.18	.043	Low < High
	Acceptable	67	17076.11	41922.38			
	Active	49	6810.04	10471.13			

DISCUSSION

The aim was to examine the relationship between physical activity levels and medical expenses among Koreans aged 40 to 80 years. A descriptive analysis and a one-way analysis of variance were conducted to evaluate the differences in outpatient care and community health and medical service expenditures by physical activity levels. The results of the study showed that individuals who belonged to the active level were observed to be

less likely to have spent on medical expenditures than individuals who classified as acceptable and inactive levels of physical activity. The total medical cost (outpatient care and community health and medical care service) was found to differ between active and inactive levels. The evaluated out-patient and community health services medical expenditures were found to be much higher for the inactive and acceptable level physical activity groups. The finding that the significant difference in medical expenditures was among individuals aged 40 to 80 years is consistent with previous studies where regular physical activity or exercise and medical expenditures show a significant link.

The previous studies on the economic impact of regular exercise or physical activity levels have largely been investigated in a variety of extensive literature reviews or based on mathematical modelling (Weiss *et al.*, 2004). Colditz (1999) investigated the database for reporting the economic costs of obesity and inactivity. The direct costs of inactivity were US\$24 billion or 2.4% of America's health-care expenditures. Katzmarzyk *et al.* (2000) evaluated the direct health-care costs relating to inactivity. They suggested that US\$2.1 billion or 2.5% of the total direct health-care costs could be contributed to physical inactivity in 1999. Mathematical models that emphasise retrospective database analysis were used to estimate the health and economic implications of exercise or physical activity in preventing chronic diseases. Munro *et al.* (1997) suggests that regular moderate exercise for over 65

year-olds could achieve important health benefits at relatively low cost. Individuals with exercise habits or high levels of physical activity are less likely to incur high medical expenses.

This study found that the direct medical expenditures were lower for active persons than for acceptable and inactive persons. Looking only at total monthly spending for physicians and drug costs attributable to illness, the figures were #6 810.04 (US\$5.34 in 2009) for active persons, #17 076.11 (US\$13.38 in 2009) for acceptable persons and #24 835.57 (US\$19.46 in 2009) for inactive persons. The mean differences of active and inactive persons with regard to total monthly direct medical expenditures were #18 025.53 (US\$14.12 in 2009), which means that improvement in physical activity level from inactive to active levels can lead to a US\$14.12 reduction of monthly direct medical expenditures. Although there was no significant difference in total monthly direct medical expenditures between the acceptable and inactive levels, the acceptable active persons had much less direct medical expenditures than the inactive persons.

It is generally acknowledged that the health care costs or medical expenditure related to physical inactivity are substantial and that improvement in fitness levels may be a favourable cost-efficacy (Weiss *et al.*, 2004). Higher levels of exercise capacity or physical activity would be associated with lower health-care costs. Pratt *et al.* (2000) reported that for respondents 15 years and older without physical limitations, the average annual direct medical costs were US\$1 019 for those who participated in physical activity regularly and US\$1 349 those who did not actively participate. Andreyeva and Sturm (2006) studied longitudinal data from a nationally representative sample of individuals aged 54 to 69 years to measure health care costs. They found that lack of regular physical activity was associated with an average US\$483 increase in total health care costs in 2004. Lin (2008)

explored the relationship between the exercise variable and the likelihood of out- and in-patient care services usage and the related costs. He found that people with exercise habits are less likely to use care services and to spend on medical treatments. The findings from this study indicated that a high level of physical activity based on frequency, duration, and intensity have significant effects on the likelihood of decreasing direct medical expenditures.

In summary, there were statistically no significant differences in the direct medical expenditure between the acceptable and under active levels, but a significant difference was found in the direct medical expenditures between the active and inactive levels. This study confirms in part the results of previous studies (Pratt *et al.*, 2000; Andreyeva & Sturm, 2006; Allender *et al.*, 2007) and has provided empirical support for the negative relationship between physical activity level and direct medical expenditures. In other words, the inactive and acceptable active persons spent much more on direct medical expenses than active persons. These results indicated that if a person wishes to decrease direct medical expenditure related to common problems, the improvement in physical activity level based on frequency, duration, and intensity should be implemented. As a consequence, health care and public health policies that promote high levels of physical activity for individuals aged 40 to 80 years would be good for the government to prevent rising medical expenditures in South Korea.

LIMITATIONS AND FUTURE STUDIES

This study has some limitations. Firstly, the sample was too small to offer a general quantitative analysis thus limiting the representativeness and generalisability of the data. A large sample size with a different sample is necessary to get reasonable precision in direct medical expenditures, which is highly skewed. Therefore, future studies should include large samples across the nation to be representative. The second limitation is that the direct medical expenditures are from a self-reported questionnaire. Although this study focused on direct medical expenditures with a common problem, there are many factors that affect medical expenditures. Thus, the claims data in the National Health Insurance Research Database (NHIC) should be used. The claims data in the NHIC includes diagnosis codes and actual healthcare expenditures on out- and in-patient care services for a number of years.

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PSYCHOLOGICAL SKILLS OF PROVINCIAL NETBALL PLAYERS IN DIFFERENT PLAYING POSITIONS

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ABSTRACT

Differences regarding the psychological skill levels of soccer, basketball, rugby union and American football players in different playing positions have been reported. These differences are believed to be the result of the specific demands of each playing position. This study examined possible positional differences in a group of 185 South African provincial netball players (mean age: 20.7 years, S.D.: 3.87 years). The subjects were divided into seven playing positions, namely: goal shooter (n=21), goal attack (n=27), wing attack (n=35), centre (n=29), wing defence (n=24), goal defence (n=25) and goal keeper (n=24), and were compared with regard to seven psychological skills and a derived composite psychological skills score, measured by means of the Athletic Coping Skills Inventory (ACSI-28) of Smith et al. (1995). Effect sizes (expressed as Cohen's d-value) were used to indicate practical significant differences. Thirty-nine of the 168 positional comparisons yielded moderate practical significant differences ($d \approx 0.5$). Collectively, these results showed that the goal attack and wing defence players consistently outperformed the other positional groups, while the goal shooters

showed the lowest psychological skill levels. The results are discussed with reference to their implications for psychological skills training programmes.

Key words: Playing positions; Netball players; Psychological skills.

INTRODUCTION

Netball is a fast, skilful team game consisting of running, jumping, throwing and catching. It is the most important team game for women in South Africa (SA) (Venter & Potgieter, 2003) and has unrivalled international popularity among females, with more than seven million participants from more than 70 countries (Netball SA, 2010). Optimal performance in this sport is dependent on the interaction of a number of factors such as tactics (Beagles, 1992), nutrition (Paish, 1992), physical conditioning, as well as technical and psychological skills (Venter *et al.*, 2005). The focus of this study was on the psychological skills due to the important contribution thereof in preparing the body and mind for optimal performance as indicated by Rushall (1989) and Cox and Yoo (1995).

There has been an increase in research that focus on sport psychological skills and the contribution thereof in sport performance over the last couple of decades. However, a limited amount of research has been conducted on this topic within the sport of netball. In this regard,

Bock Jonathan *et al.* (2004) emphasised the importance of developing sound psychological skills in order to achieve success within this sport. This is supported by the findings of Davenport *et al.* (2005) who indicated a need to improve netball players' coping strategies due to the gruelling demands of the game. According to Woodlands (2006), self-image, self-confidence and concentration are the psychological factors that play an important role in netball.

Van den Heever *et al.* (2007a) surveyed the situation with regard to sport Psychological Skills Training (PST) in South African Netball. The survey found that a reasonable portion (43.31%) of the 314 provincial netball players who participated in this survey have previously been exposed to PST sessions in which self-confidence, positive self-talk, team cohesion, goal-setting and concentration skills were the most frequently addressed topics. Also, players from more successful netball teams scored significantly higher for peaking under pressure, whilst they perceived their cognitive anxiety and self-confidence levels to be more facilitative towards performance than their less successful counterparts (Van den Heever *et al.*, 2007b). Collectively, these results stress the importance of well-developed sport psychological skills within this sport.

A netball team consists of seven players, each in a specialised playing position with a further three reserve players. There is evidence that players in different playing positions tend to have different psychological skill levels (Cox & Yoo, 1995). In this regard Sharpe (1993) noted that the requirements for each playing position exerted an influence on the psychological make-up of the players in that specific position. According to the study by Sharpe, junior netball players revealed significant personality differences between the centres and all other playing positions with the exception of the goal keepers. Since this was the only information regarding psychological attributes, which could be found for netball

players in different playing positions, research findings on this topic from other sporting codes will be outlined.

According to Nation and LeUnes (1983), defensive linemen in American football have a significantly greater internal locus of control than offensive linemen. Using the Myers-Briggs Type Indicator, Schurr *et al.* (1984) found significant psychological differences in certain personality dimensions (extraversion-introversion, sensing-intuition, thinking-feeling and judging-perceiving) among American football players in different playing positions. Cox and Yoo (1995) reported significant differences for anxiety control between the players in offensive and defensive positions within the sport of American football. Soccer players in attacking positions were shown to have significantly higher levels of emotional instability in comparison to players in defensive positions (Kirkcaldy, 1982). In the sport of rugby union, Andrew *et al.* (2007) found that the hookers and half-backs tested superior to the props, locks, wings and fullbacks in all seven tested psychological skills subscales. From these findings, it is clear that positional differences do exist with regard to psychological skills and attributes among athletes from various sporting codes. The question remains whether or not such differences exist among netball players.

The aim of this study was to determine whether the psychological skill levels of South African provincial netball players in different playing positions, differed from one another.

The results of this study may influence the way in which Psychological Skills Training (PST) programmes should be developed and implemented within this sport.

METHODS

Participants

Female netball players (N=185) from 19 provincial teams who competed in the A-section of the 2004 South African National Netball tournaments (u/19, u/21 and seniors) hosted by North-West South Netball province participated in this study. In cases where junior players (u/19 or u/21) also participated in the senior tournament (later in the year), only the data gathered during the junior tournaments were used for this study. The group consisted of u/19 (n=81), u/21 (n=63) and senior players (n=41) with a mean age of 20.7 years (S.D.: 3.87 years). On average, these players have been playing netball for 11.6 years (S.D.: 4.44 years). The players were divided into seven positional groups based on their primary playing position during these tournaments (Table 1).

TABLE 1: DESCRIPTIVE INFORMATION OF THE PLAYERS IN EACH OF THE SEVEN PLAYING POSITIONS

Positions (abbreviations)	Number of players in each positional group (n)
Goal shooter (GS)	21
Goal attack (GA)	27
Wing attack (WA)	35
Centre (C)	29
Wing defence (WD)	24

Goal defence (GD)	25
Goal keeper (GK)	24

Questionnaires

The subjects completed a demographic and netball playing history questionnaire in addition to the Athletic Coping Skills Inventory (ACSI-28) of Smith *et al.* (1995). The last-mentioned questionnaire provided a trait-like measure of sport psychological skills believed to be instrumental in improved sporting performances. The questionnaire consisted of seven psychological skills and attributes with subscales measuring coping with adversity, peaking under pressure, goal-setting/mental preparation, concentration, freedom from worry, confidence and achievement motivation, as well as coachability. The average score obtained for the seven subscales represents the composite psychological skills score. Netball players were asked to read the statements on the ACSI-28 that described experiences of other players and to recall how often they experienced these events. The seven subscales each consists of four items measured on a 4-point Likert-type scale ranging from “*Almost never*” [0] to “*Almost always*” [3]. The results were converted to a percentage score with higher values reflecting better psychological skill levels.

The ACSI-28 was originally developed and validated for an American high school athletic population. The original English version of the instrument was administered to the research

participants, as it has not been translated into any other official South African language. In addition, the instrument has not yet been standardised for the South African population. Readers are subsequently cautioned that the results and conclusions drawn from this study might be culturally biased and could reflect misunderstandings by some of the participants.

Despite these limitations, the internal consistency reliability (Cronbach’s alpha values) of the current dataset showed promise, namely composite psychological skills score ($\alpha=0.87$), coping with adversity ($\alpha=0.67$), peaking under pressure ($\alpha=0.74$), goal-setting/mental preparation ($\alpha=0.80$), concentration ($\alpha=0.55$), freedom from worry ($\alpha=0.76$), confidence and achievement motivation ($\alpha=0.56$) and coachability ($\alpha=0.66$). These scores compared well with those previously reported by Crocker *et al.* (1998) among a group consisting of 594 male and 433 female high school athletes. Their alpha values ranged from 0.62 to 0.78 for the seven psychological skill subscales.

Procedure

Permission for the study was granted by the Council of Netball South Africa after which the various provincial presidents were notified. The testing procedure was communicated to the managers and coaches during the meeting held on the evenings prior to the commencement of the three tournaments (u/19, u/21 and seniors). The times for testing were scheduled in coordination with the organising committee in order to limit any possible inconvenience. All the participants completed consent forms, after being informed of the nature and purpose of the research project. Players were free to refuse or withdraw their participation in the project at any time without having to provide reasons. Individual results were treated confidentially.

Data analysis

The *statistica* data analysis package (Statsoft, 2009) was used for the statistical analysis. Effect sizes (ES) were used to determine the practical significant differences between the various positional groups with regard to the seven psychological skills and attributes (as well as the composite psychological skills score). Effect sizes were calculated according to the formula described by Thomas *et al.* (2005), i.e. $ES = (M_1 - M_2)/s$. Here, M_1 = the mean value of the first positional group in the comparison, M_2 = the mean value of the second positional group in the comparison and s = the standard deviation. The pooled standard deviation (S_p) was used in which:

$$s_p = \sqrt{\frac{s_1^2(n_1 - 1) + s_2^2(n_2 - 1)}{n_1 + n_2 - 2}}$$

Here, S_p = the pooled standard deviation; S_1^2 = the variance of the participants in the first positional group; S_2^2 = the variance of the participants in the second positional group, n_1 = the number of participants in the first positional group; n_2 = the number of participants in the second positional group in the comparison. Effect sizes were expressed as Cohen's *d*-value and could be interpreted as follows: ES of more or less 0.8 was large, ES of more or less 0.5 was moderate, and ES of more or less 0.2 was small (Thomas *et al.*, 2005).

RESULTS AND DISCUSSION

Tables 2 to 9 present the mean and standard deviation scores of the composite psychological skills score and the seven psychological skill subscales for each of the seven playing positions. From Table 2, it is evident that the wing defence players (65.2±13.5%) and goal keepers (64.8±11.8%) on average showed moderately better composite psychological skill scores than the goal shooters (57.9±11.8%) and wing attack players (60.3±18.7%). In addition, the goal shooters (57.9±11.8%) showed practical significantly lower values than the goal attack players (63.5±11.9%). No attempt will be made to explain the existing positional differences regarding the composite psychological skills score reported in Table 2, as this will be done for each of the seven psychological skills subscales (from which the composite psychological skills score was derived) reported in Tables 3–9.

TABLE 2: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR THE COMPOSITE PSYCHOLOGICAL SKILLS SCORE

Mean and standard deviation	Positional group	Effect sizes (Cohen's <i>d</i> -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
57.9±11.8 %	Goal shooter (n=21)	-	0.47°	0.19	0.29	0.57°	0.30	0.58°
63.5±11.9 %	Goal attack (n=27)	-	-	0.26	0.11	0.13	0.11	0.11
60.3±18.7 %	Wing attack (n=35)	-	-	-	0.12	0.37°	0.13	0.36°
62.0±15.3 %	Centre	-	-	-	-	0.22	0.00	0.20

65.2±13.5 %	(n=29) Wing defence	-	-	-	-	-	0.23	0.03
62.0±14.5 %	(n=24) Goal defence	-	-	-	-	-	-	0.21
64.8±11.8 %	(n=25) Goal keeper	-	-	-	-	-	-	-
	(n=24)							

° Moderate practical significance ($d =$ more or less 0.5)

Table 3 revealed that the coping with adversity scores of the goal shooters (54.4±20.8%) were moderate practical significantly lower than the wing defence players (67.7±21.9%), goal defence players (63.7±22.2%), and goal attack players (62.0±18.8%) respectively. The goal shooters are primarily responsible for the scoring of goals, thereby directly influencing the match outcome. Kok's (2007) article in a leading national newspaper indicated the goal shooter position as a major concern within South African netball, as the senior national side only converted 50.8% of their shots at goal during an international test match series. This poor goal conversion rate could possibly be related to their inability to cope with adverse conditions. Furthermore, the goal shooters had the lowest or second lowest psychological skill levels of the seven positional groups in six of the seven tested subscales. This illustrates an alarming trend, which needs to be addressed. The results from Table 3 also showed that

players in the wing defence position were more capable of coping with adverse situations as they showed moderate practical significantly higher scores (67.7±21.9%) than the goal shooters (54.4±20.8%), goal keepers (59.4±20.9%), wing attack players (59.8±18.7%) and centres (59.8±23.4%).

TABLE 3: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR COPING WITH ADVERSITY

Mean and standard deviation	Positional group	Effect sizes (Cohen's d -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
54.4±20.8 %	Goal shooter (n=21)	-	0.39°	0.28	0.24	0.62°	0.43°	0.24
62.0±18.8 %	Goal attack (n=27)	-	-	0.12	0.11	0.28	0.08	0.13
59.8±18.7 %	Wing attack (n=35)	-	-	-	0.00	0.39°	0.19	0.02
59.8±23.4 %	Centre (n=29)	-	-	-	-	0.35°	0.17	0.02
67.7±21.9 %	Wing defence (n=24)	-	-	-	-	-	0.18	0.39°
63.7±22.2 %	Goal defence (n=25)	-	-	-	-	-	-	0.20
59.4±20.9 %	Goal keeper (n=24)	-	-	-	-	-	-	-

° Moderate practical significance ($d =$ more or less 0.5)

As expected (given the earlier discussion about the coping with adversity scores), the goal shooters (46.8±18.5%) showed a weakness regarding their ability to peak under pressure (Table 4). Their peaking under pressure scores was on average significantly lower than the goal attack players (55.6±18.3%), goal keepers (54.5±17.9%) and wing defence players (53.8±21.3%). Another group of players who seemed to be unable to deliver optimal performance under high pressure situations were the wing attack players (46.4±20.3%) who had significantly lower scores than the goal attack, goal keepers and wing defence players.

In this regard, Wills and Kinrade (2010) found that poor passing accuracy under pressure by netball players were largely due to the players failing to make correct decisions (e.g. when or who to pass to), rather than failing to perform the motor action of the passing skill. This particular finding contribute to a better understanding of possible underlying reasons for the observed weakness among the wing attack players in the present study, but not for the goal shooters. Because goal shooters are primarily judged on their goal shooting percentages and not on their passing accuracy, it could be assumed that their impaired performance under pressure was due to poor motor skill execution. Further research in this regard is required.

TABLE 4: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR PEAKING UNDER PRESSURE

Mean and standard deviation	Positional group	Effect sizes (Cohen's <i>d</i> -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
46.8±18.5 %	Goal shooter (n=21)	-	0.47°	0.02	0.15	0.35°	0.18	0.42°
55.6±18.3 %	Goal attack (n=27)	-	-	0.47°	0.26	0.09	0.27	0.06
46.4±20.3 %	Wing attack (n=35)	-	-	-	0.16	0.36°	0.19	0.42°
50.0±23.5 %	Centre (n=29)	-	-	-	-	0.17	0.01	0.21
53.8±21.3 %	Wing defence (n=24)	-	-	-	-	-	0.16	0.04
50.3±21.0 %	Goal defence (n=25)	-	-	-	-	-	-	0.21
54.5±17.9 %	Goal keeper (n=24)	-	-	-	-	-	-	-

° Moderate practical significance (*d* = more or less 0.5)

TABLE 5: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR GOAL-SETTING/MENTAL PREPARATION

		Effect sizes (Cohen's <i>d</i> -value)
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Mean and standard deviation	Positional group	Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
46.8±27.8 %	Goal shooter (n=21)	-	0.09	0.28	0.39°	0.53°	0.30	0.55°
49.1±22.3 %	Goal attack (n=27)	-	-	0.21	0.33	0.49°	0.24	0.52°
54.1±24.4 %	Wing attack (n=35)	-	-	-	0.11	0.26	0.04	0.29
56.9±24.9 %	Centre (n=29)	-	-	-	-	0.14	0.07	0.17
60.4±23.8 %	Wing defence (n=24)	-	-	-	-	-	0.21	0.03
55.0±27.2 %	Goal defence (n=25)	-	-	-	-	-	-	0.24
61.1±24.3 %	Goal keeper (n=24)	-	-	-	-	-	-	-

° Moderate practical significance ($d =$ more or less 0.5)

The frequency of and effectiveness with which the players in the respective positional groups made use of goal-setting/mental preparation are reported in Table 5. The goal shooters

(46.8±27.8%) and goal attack players (49.1 ± 22.3%) were significantly less prone to use these techniques than the goal keepers (61.1 ± 24.3%) and wing defence players (60.4 ± 23.8%). In fact, players in the defensive positions (wing defence, goal defence and goal keepers) made greater use of these skills than the attacking players (goal shooters, goal attack and wing attack), thereby indicating an area in which the attacking players may need more guidance in order to enhance their mental preparation and their performances.

TABLE 6: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR CONCENTRATION

Mean and standard deviation	Positional group	Effect sizes (Cohen's d -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
63.9±15.9 %	Goal shooter (n=21)	-	0.00	0.04	0.11	0.36°	0.08	0.18
63.9±16.2 %	Goal attack (n=27)	-	-	0.04	0.11	0.36°	0.08	0.18
63.3±14.7 %	Wing attack (n=35)	-	-	-	0.15	0.41°	0.06	0.23
65.8±19.0 %	Centre (n=29)	-	-	-	-	0.22	0.16	0.08
69.8±17.0 %	Wing defence (n=24)	-	-	-	-	-	0.34°	0.12
62.1±26.3 %	Goal defence (n=25)	-	-	-	-	-	-	0.22
67.4±21.7 %	Goal keeper	-	-	-	-	-	-	-

	(n=24)	
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* Moderate practical significance ($d =$ more or less 0.5)

Few differences existed with regard to the players' ability to concentrate (Table 6) as only the wing defence players ($69.8 \pm 17.0\%$) showed practical significant better concentration levels than the goal shooters ($63.9 \pm 15.9\%$), goal attack players ($63.9 \pm 16.2\%$), wing attack players ($63.3 \pm 14.7\%$) and goal defence players ($62.1 \pm 26.3\%$).

This finding may be partially explained by the statement of Dewhursts-Hands (1980) who noted a need for superior concentration skills by the wing defence players, as they have to focus on the actions of the opposing wing attack. In this regard, Shakespear (1997) indicated that the wing defence player should try to out-think the wing attack player, because outrunning him/her is unlikely. It could be argued that well developed concentration skills would be beneficial in anticipating and/or responding to the movements of the opposition wing attack players.

TABLE 7: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR FREEDOM OF WORRY

Mean and standard deviation	Positional group	Effect sizes (Cohen's d -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
46.0±28.6 %	Goal shooter (n=21)	-	0.20	0.14	0.36°	0.24	0.04	0.29
50.9±19.4 %	Goal attack (n=27)	-	-	0.05	0.21	0.07	0.26	0.13
49.8±26.2 %	Wing attack (n=35)	-	-	-	0.23	0.10	0.18	0.16
55.5±24.6 %	Centre (n=29)	-	-	-	-	0.12	0.42°	0.07
52.4±25.0 %	Wing defence (n=24)	-	-	-	-	-	0.30	0.05
45.0±25.2 %	Goal defence (n=25)	-	-	-	-	-	-	0.35°
53.8±25.3 %	Goal keeper (n=24)	-	-	-	-	-	-	-

° Moderate practical significance ($d =$ more or less 0.5)

The results in Table 7 show that the participants in general experienced a great deal of worry. This was especially evident among the goal defence players ($45.0 \pm 25.2\%$) and goal shooters ($46.0 \pm 28.6\%$). The primary roles of goal defence players (intercepting the ball and preventing it from reaching the circle) and goal shooters (scoring goals) are deemed critical in the eventual match outcomes. Furthermore, these players were also subject to frequent periods of rest during normal play. Andrew *et al.* (2007) propose that periods in which a player is inactive may cause them to ponder upon past mistakes and the match proceedings in general, thereby increasing the prevalence of negative thoughts and worries.

Poor confidence and achievement motivation levels were evident for all the positional

groups (Table 8). It was also observed that the goal shooters (48.8±11.0%) and centres (49.1±14.3%) had moderate practical significant lower values than the goal attack players (54.3±14.3%) and goal keepers (54.9±12.3%).

Weinberg and Gould (2007:336) indicate prior performance accomplishments as a major source of self-confidence, as “successful behaviour increases confidence and leads to further successful behaviour”. However, the poor performance among the goal shooters (as noted earlier) could affect their confidence levels negatively. Although speculative, it is reasonable to suggest that goal shooters may experience a fear of failure, one of the factors negatively associated with achievement motivation. Gill (cited in Weinberg & Gould, 2007:61) defines achievement motivation as “a person’s orientation to strive for task success, persist in the face of failure and experience pride in accomplishments”. Therefore, these two attributes (confidence and achievement motivation) were closely related and grouped together in the ACSI-28. Previous reports by Erculj and Vicic (2001) showed centres in basketball to have significantly weaker motivational dimensions than the forwards and guards. They

hypothesised that playmakers and links (such as centres), who do not directly affect the match outcome by the scoring of goals (goal shooter and goal attacks) or by preventing goals from being scored (goal defence and goal keepers), would show lower achievement motivation levels, as they might not value their contribution to the teams’ results highly. In addition, this may adversely affect their self-confidence levels.

TABLE 8: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR CONFIDENCE AND ACHIEVEMENT MOTIVATION

Mean and standard deviation	Positional group	Effect sizes (Cohen’s <i>d</i> -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
48.8±11.0 %	Goal shooter (n=21)	-	0.43°	0.15	0.02	0.23	0.29	0.52°
54.3±14.3 %	Goal attack (n=27)	-	-	0.26	0.36°	0.18	0.14	0.04
50.7±13.9 %	Wing attack (n=35)	-	-	-	0.11	0.07	0.12	0.31
49.1±14.3 %	Centre (n=29)	-	-	-	-	0.18	0.23	0.43°
51.7±14.1 %	Wing defence (n=24)	-	-	-	-	-	0.04	0.24
52.3±13.1 %	Goal defence (n=25)	-	-	-	-	-	-	0.20
54.9±12.3 %	Goal keeper (n=24)	-	-	-	-	-	-	-

° Moderate practical significance (*d* = more or less 0.5)

The ACNielsen (2007) research report, on motivations and barriers to netball participation, indicated that the culture of netball is based on criticism, rather than encouragement. This

was attributed to the focus of netball coaches on winning rather than on participation, coupled with criticism from parents. Within the context of the research instrument used in the present study, coachability referred to the manner in which players coped with negative feedback, advice and instructions from their coaches.

The scores in Table 9 show a tendency of the goal attack players to effectively cope with these types of information significantly better than all the other positional groups. Dewhursts- Hands (1980) notes that goal attack players are particularly exposed to both criticism and praise from their coaches due to the high demands placed on them regarding goal shooting and their contribution in the attacking third of the netball court. The results suggested that goal attack players could have become more coachable due to continuous exposure to both positive and negative feedback from their coaches.

TABLE 9: DESCRIPTIVE STATISTICS AND COMPARISONS BETWEEN THE DIFFERENT POSITIONAL GROUPS FOR COACHABILITY

Mean and standard deviation	Positional group	Effect sizes (Cohen's <i>d</i> -value)						
		Goal shooter (GS)	Goal attack (GA)	Wing attack (WA)	Centre (C)	Wing defence (WD)	Goal defence (GD)	Goal keeper (GK)
57.5±19.4 %	Goal shooter (n=21)	-	0.51°	0.07	0.02	0.03	0.08	0.09
65.4±11.9 %	Goal attack (n=27)	-	-	0.61°	0.61°	0.52°	0.44°	0.48°
56.2±17.3 %	Wing attack (n=35)	-	-	-	0.06	0.11	0.16	0.17
57.2±14.9 %	Centre (n=29)	-	-	-	-	0.05	0.11	0.12
58.0±16.4 %	Wing defence (n=24)	-	-	-	-	-	0.06	0.07
59.0±17.0 %	Goal defence (n=25)	-	-	-	-	-	-	0.00
59.0±14.9 %	Goal keeper (n=24)	-	-	-	-	-	-	-

° Moderate practical significance (*d* = more or less 0.5)

CONCLUSIONS

The 168 comparisons between the various positional groups yielded 39 practical significant differences of moderate magnitude. The goal shooters showed significantly lower values compared to the majority of the other playing positions, whilst the goal attack players and wing defence players consistently outperformed the remaining positional groups. It is, therefore, concluded that certain positional trends do exist with regard to the psychological skill levels of netball players. This has previously been shown to be the case in soccer, basketball, rugby union and American football as well.

The observed psychological differences between the various playing positions from a variety of sporting codes should be interpreted within the context of the specific positional requirements of the sport in question. As such, it was difficult to make conclusions on the

positional differences across various sports. The centres were the one playing position for which an emerging trend across various sporting codes seems to be evident. In comparison to the players in more attacking or defensive positions, the centres in basketball (Erculj & Vivic, 2001) and netball tend to show lowered achievement motivation levels. Potentially, the roles of centres (in basketball and netball) as playmakers or links have a more indirect contribution to the eventual match outcomes than the players responsible for scoring goals and those responsible for preventing goals from being scored. The possible debilitating influence on their motivational levels and performance brought about by this supporting role is something coaches should be aware of and should be interpreted and addressed within the context of the team's motivational climate.

RECOMMENDATIONS

The current results contributed to the earlier research on the South African netball population by Van den Heever *et al.* (2007a; 2007b), as well as Grobbelaar (2007). These studies respectively surveyed PST in South African netball, identified various psychological skills and attributes related to netball performance, as well as the opinions, abilities and limitations of coaches regarding PST within this sport. Collectively, these researchers stressed the need for the development and implementation of netball specific PST and coach education programmes.

The results from the present study suggests that positional differences should also be accounted for in the development and implementation of such programmes. Further research on the effectiveness of PST programmes and its effect on netball performance are recommended. Despite the observed differences in the psychological skill levels of netball players in the various playing positions, coaches and selectors should not select players in a specific position solely on their psychological skills profile. In this regard, Cox and Yoo (1995) noted that players should be selected on their overall playing abilities and long term potential. Once selected for a particular position on a team, netball specific PST programmes could be implemented.

Certain limitations of this study should be kept in mind when ensuing further research. The results of this study were based upon an elite South African netball population consisting of 185 participants. The grouping of the participants into seven playing positions resulted in small group sizes (varying between 21 and 35 subjects). Caution should therefore be applied when generalising these results to other netball playing populations. Future studies should also make use of locally standardised instruments to allow accurate self-perceptions. Failure to do so could compromise the credibility of the research findings.

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A MOTIVATION BASED TYPOLOGY OF OPEN-WATER SWIMMERS

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ABSTRACT

People travel to destinations for different reasons and the same applies to sporting events. To fulfil the needs of athletes and ensure that the event remains competitive, it is important to understand the needs of different markets through market segmentation. Reasons for participation (travel motives) were used to identify different market segments at the largest open-water swimming event in the world, the Midmar Mile in South Africa. The survey was conducted during the registration period in February 2010. A total of 461 questionnaires were administered and a factor analysis was conducted. Three motivational factors were identified: socialisation and escape, fun and entertainment and intrinsic achievement. ANOVAs were applied and the results showed that the swimmers did not have homogenous motives for participation. The results confirmed that motives for participating differ according to the sporting event, and that marketers and sport event organisers need to be aware that not all participants are the same. These findings can assist organisers to differentiate between the needs of different markets, and thereby adapt their marketing campaigns accordingly, which would lead to a more competitive and sustainable event.

Key words: Market segmentation; Factor analysis; K-means clustering;
Travel motivation; Sport tourism; Sport participants.

INTRODUCTION

FINA (Fédération Internationale de Natation), the world governing body of swimming, officially recognised open-water swimming in 1986. Yet, open-water swimming, the forerunner of what today is known as indoor competitive swimming, existed at the 1896 Olympic Games and earlier (OWS ADVISORY COMMITTEE, 2003). Open-water

swimming, which is also known as long-distance swimming, is defined as any swimming competition up to 25km that takes place in open water (lakes, rivers, canals and the sea); events over 25km are considered marathon swims (Dean, 1998:3; OWS ADVISORY COMMITTEE, 2003). The afore-mentioned swimming competitions are endurance events, similar to marathon running or long-distance cycling. Open-water swimming appeals to a variety of swimmers, and competitors range from developmental or age-group swimmers to master-level swimmers. As a result, the sport has expanded and participation has grown significantly both nationally and internationally (VanHeest *et al.*, 2004).

The sport's popularity is evident from the more than 1 400 competitive open-water swimming races that are held around the world. In South Africa, more than 90 open-water swimming races are held every year, ranging from serious competitions to recreational and charity swims. The most popular and successful open-water swimming event in South Africa is the Halfway Telkom Midmar Mile (hereafter referred to as the Midmar Mile¹), which attracts 13 755 finishers. In 2009, it was officially recognised as the „World's Largest Open Water Swimming Event“ by the Guinness Book of World Records. For the past 37 years, the event has been held at the Midmar Dam located north of Pietermaritzburg in KwaZulu-Natal. The many competitors include serious international athletes, Olympic medallists, enthusiastic amateurs, families, disabled persons, as well as swimmers from schools, clubs and companies.

The Midmar Mile attracts swimmers of different ages and fitness levels who participate in various categories. The main goal that draws many open-water swimmers to the sport is to complete a swim, regardless of the distance (Dean, 1998). However, given the diverse range of swimmers, the Midmar Mile participants are unlikely to be influenced by a single motive, but rather a number of motives affect their decisions (Gill & Williams, 2008). Non-competitive participants might be motivated by the desire to seek new and different experiences, meet new people, and the need to escape from routine, whereas competitive swimmers may be driven by the desire to win, to be with a team, or to improve their level of fitness (Hastings *et al.*, 1995; Weed & Bull, 2004). Insight into the motives and interests of the different categories/segments of participants at the Midmar Mile is necessary (De Knop, 1990). With the above in mind, this article is based on research conducted to determine the motives of the Midmar Mile swimmers and, based on these motives, to identify and profile different markets/segments at the race.

LITERATURE REVIEW

Sport-based events, such as the Midmar Mile, differ from other types of events, as they attract a wide range of tourists, spectators and participants, each seeking to satisfy their motivations for engagement in slightly different ways (Cassidy & Pegg, 2008). Both Brotherton and Himmetoglu (1997) and Cook *et al.* (2010) classify sport participants as special interest groups of travellers, since they are motivated to travel to a sport event for a distinct and specific reason or interest. Motivation is an activation, drive and/or reason to engage in certain behaviours and to maintain those behaviours (Mannell & Kleiber, 1997). Motivation therefore determines the direction and strength or intensity of behaviour (Parrinello, 1993; Cassidy & Pegg, 2008). The concept of needs is central to most theories of motivation (Hudson, 1999). Needs are the driving force that motivate behaviours, and so to understand human motivation means discovering people's needs and how to fulfil them.

Sport participation involves primarily a set of motivational factors established in anticipation of the fulfilment of the desired needs (Cassidy & Pegg, 2008).

¹ The Midmar Mile gains its name from its location (Midmar Dam) and its distance (\pm one mile or 1 600 metres). A unique feature of the race is that while the distance covered is one mile, depending on the rainfall and the water levels in the dam, the distance swum varies from year to year. In years with poor rainfall, competitors must sprint through the shallows until the water is deep enough to swim.

If this is the case, event planners should pay more attention to the expectations and experiences of participants (Green & Chalip, 1998) because a positive experience means that individuals continue to participate and become more committed to maintaining their level of involvement (Casper & Stellino, 2008). Previous research has found that sport participants' motivators can be intrinsic in nature (to experience, to know, to accomplish and to be physically active) or speak to self-determination (Gill *et al.*, 1983; Ritchie & Adair, 2002). Sport participants can also seek extrinsic motivators such as winning trophies and gaining social prestige (Hritz & Ramos, 2008). A study of cyclists at the Cape Argus Pick „n Pay Cycle Tour (CACT) in Cape Town, South Africa, found that participants were mainly motivated by intrinsic motives such as personal motivation, escape and relaxation, while the event itself was also a major motivator. Based on the results, the study suggested that the CACT should combine the event attractiveness with achievement of personal (intrinsic) goals in their marketing campaign (Streicher & Saayman, 2009). These findings support the view that understanding the motives of participants is critical, because of the implications for developing marketing strategies that attempt to match the sport event offering with the motivational bundle sought by the sport participants (Gill & Williams, 2008).

Swimming events greatly contribute to the economy of the local community, as participants spend a significant amount of money locally (Hritz & Ramos, 2008). Continued involvement by regular participants is vital for the sustainability of annual swimming events, such as the Midmar Mile (Mullin *et al.*, 2000). It is crucial to understand swimmers' motives for participating, especially as the bid process for sporting events can be complex and swimmers can pick and choose which events they attend (Hritz & Ramos, 2008). However, understanding their motives is a complex phenomenon, as motives are influenced by many behavioural factors that are different for each person and may shift across the lifespan (Hastings *et al.*, 1995; Vallerand & Losier, 1999; Hritz & Ramos, 2008). Furthermore, participants not only have different motives but their motives also vary in strength and importance (Koivula, 1999). Therefore, what makes one person choose to participate in a swimming event may not be the same for another person (Hritz & Ramos, 2008).

Research has recently been done to determine the motives of participants at different sport events. When comparing competitive and non-competitive sport participation, competitive athletes emphasised the extrinsic motives of reinforcement and competing against others (Ogles & Masters, 2003; Weed & Bull, 2004), while non-competitive athletes endorsed life meaning, social and participation motives (Croft *et al.*, 1999). McDonald *et al.* (2002:102-104) identified 13 motivational constructs that drive participation in a sport event. These are physical fitness, risk-taking, stress reduction, aggression, affiliation, social facilitation, self-

esteem, competition, achievement, skill mastery, aesthetics, value development and self-actualisation. Gillett and Kelly (2006:239) identified similar motives: competition, extrinsic- achievement, socialising, camaraderie and athletic identity. Some people also want their chosen sport to be fun and entertaining, and participate for the „love of the game“ (Buchanan & Dann, 2006). On the other hand, LaChausse (2006) found that participation in a sport event could result from a combination of motives: health orientation, weight concern, goal achievement, competition, recognition, affiliation, coping, life-meaning and self-esteem. Participants are motivated by the chance to spend more time with family members, friends and business associates, while participant performance is motivated by peer and family

relations in the sport setting, such as friendship, peer acceptance, family presence and social interaction (Weiss & Duncan, 1992; Jamber, 1999; McDonald *et al.*, 2002).

Given the above findings, people participate in sporting events for various reasons. The motivations of adult sport participants are different from those of their younger cohorts (Hritz & Ramos, 2008). Adult swimmers rate health and fitness as more important than social status associated with participating in their sport, or having fun, that younger swimmers report. However, older adults are more motivated to have fun, while younger adults in their 20s and 30s are more motivated to be with friends and family (Brodkin & Weiss, 1990). Other significant variables were also revealed when examining the motives of the adult swimming participants such as age, gender and past experience (Hritz & Ramos, 2008). Moreover, adult swimming participants are significantly affected by their past experience at swimming events and the number of swim competitions they participate in a year (Hastings *et al.*, 1995; Hritz & Ramos, 2008). Gill *et al.* (1996) found differences between the genders: women are more interested in fitness and health issues, while men are more inclined to compete to win.

However, having fun, being physically fit, making friends and seeking achievement may well be important motives for participation in swimming events, but they change over time or are dependent on age, gender, ability and skill level (Robinson & Gammon, 2004; Buchanan & Dann, 2006). Even within particular activities, participation profiles, behaviours, motives and experiences vary considerably. Therefore, marketers and sport event organisers need to recognise that swimming participants should be regarded as heterogeneous, as they do not have the same interests and needs (Hinch & Higham, 2004; Weed & Bull, 2004). Given the heterogeneity of participants, motivation alone cannot explain why they participate in a sport event. Demographic characteristics such as age, gender and education can increase the predictability of the level of participation in a sport event based on motivation (Zhang *et al.*, 2001). Hence, market segmentation, which divides potential participants into identifiable groups that share similar characteristics and exhibit common behaviour (Kotler, 1993), allows marketers to identify potential target markets and customise marketing strategies for these groups (Green, 2003; Casper & Stellino, 2008).

The profile of sport participants is male, physically active, college educated, relatively affluent, and young (18-44 years old), willing to travel long distances to participate, likely to engage in active sport tourism well into retirement, tends to participate in more than one activity and engages in repeat activity (Delpy, 1998; Gibson, 1998; Hemmati Nezhad *et al.*, 2009; Streicher & Saayman, 2009; Cook *et al.*, 2010). Sport-based events should identify

committed participants, as they will play a more essential role in achieving the goals of the event, including revenue generation (Iwasaki & Havitz, 2004). The successful marketing and long-term sustainability of any sport-based event, such as the Midmar Mile, is dependent on the profile of the (swimming) participants together with the motives that attract them to the event (Gill & Williams, 2008).

PURPOSE

The purpose of this research was to segment swimmers at the Midmar Mile based on their motives for participation. The results can be used to encourage wider participation, provide a more satisfying experience, help athletes (children and adults) fully benefit from their

experience and persuade swimmers to return which, in turn, can produce a greater prestige and financial return not only for the event, but possibly for the wider travel destination as well (Hritz & Ramos, 2008). As this approach has never been applied to swimmers or any other sport participants in South Africa, the research will also expand the limited knowledge and literature base concerning the motives of different sport participants in the country.

METHOD OF RESEARCH

The data was gathered during the registration process at the Midlands Mall in Pietermaritzburg from 10-12 February 2010. Field workers were trained to ensure that they understood the aim of the study and the questionnaire, and that they targeted respondents representative of the profile provided by the event organisers (that is, an even distribution of younger and older participants). Respondents were also briefed beforehand on the purpose of the research, to ensure that they participated willingly and responded openly and honestly. Approximately 500 self-administered questionnaires were distributed during the registration process, of which 461 completed questionnaires were included in the analysis. According to Cooper and Emory (1995:207), for any population of 100 000 (N) the recommended sample size (S) is 384. Since 13 755 swimmers finished the race in 2009, the number of completed questionnaires is greater than the required number.

Questionnaire

The survey questionnaire was divided into questions concerning the participants' profile (age, gender, home language, occupation, province and country of origin, marital status, level of education), socio-economic information (length of stay, group size, spending behaviour, mode of transport and type of accommodation), behaviour (number of years participating, initiator of participation, category and other sport events attended), and motives for participation. The content of the questionnaire was based on the work of Gill *et al.* (1983), Brodtkin and Weiss (1990), Hritz and Ramos (2008), and Streicher and Saayman (2009). The section on motives for participation measured 19 items on a five-point Likert scale: respondents were asked to indicate how important they considered each item (1=not at all important; 2=less important; 3=important; 4=very important; and 5=extremely important).

Statistical analysis

Microsoft® Excel® was used to capture and analyse the data. SPSS (2007) was used to analyse the data further. The analysis comprised of four stages. Firstly, a general profile of the participants was compiled. Secondly, a principal component factor analysis, using an oblimin rotation with Kaiser Normalisation was performed on the 19 motivational items, to explain the variance-covariance structure of the set of variables through a few linear combinations of these variables. The Kaiser-Meyer-Olkin measure of sampling adequacy was used to determine whether the covariance matrix was suitable for factor analysis. Kaiser's criteria for the extraction of all factors with eigenvalues larger than 1 were used. Items with a factor loading above 0.3 were considered as contributing to a factor, whereas items with factor loadings lower than 0.3 were considered as not correlating significantly with a factor (Stein, 2000). Any item that cross-loaded on two factors with factor loadings greater than 0.3, was categorised in the factor where it could be best interpreted. A reliability coefficient (Cronbach's alpha) was computed to estimate the internal consistency of each factor. All

factors with a reliability coefficient above 0.6 were considered to have acceptable internal consistency. As another measure of reliability, the average inter-item correlations were also computed and, according to Clark and Watson (1995), the average inter-item correlation should lie between 0.15 and 0.55.

Thirdly, two types of cluster analyses were undertaken to distinguish different groups/segments of swimmers. A cluster analysis is "a multivariate interdependence technique, whose primary objective is to classify objects into relatively homogeneous groups based on the set of variables considered, and is mostly an exploratory technique" (Hair *et al.*, 2000: 594). Hierarchical clustering makes no assumptions concerning the number of groups or group structure. Instead, the members are grouped together based on their natural similarity (Johnson & Wichern, 2007). This research did not take an *a priori* view of which data points should fall into which segment. Rather, a hierarchical cluster analysis was used to explore the natural structure of the data, by means of Ward's method with Euclidean distances. Based on the most viable number of clusters obtained from the hierarchical cluster analysis, K-means clustering was performed on the motivational factor scores. K-means clustering is a non-hierarchical technique for grouping items (rather than variables). With K-means clustering, the data is divided into a given number (K) of clusters, where the researcher chose K from the hierarchical dendrogram. Each item is assigned to a cluster based on distances from the mean value of the cluster, using the Euclidean distance (Johnson & Wichern, 2007). In this case, the number of clusters chosen was based on the results of the initial hierarchical cluster analysis, and K was chosen as three groups in the analysis.

Lastly, after identifying the clusters, multivariate statistics were used to examine any statistically significant differences between the motivational clusters. The demographic profile of the clusters was established through two-way frequency tables and Chi-square tests, while any significant differences in continuous variables between clusters were investigated using ANOVAs with Tukey's multiple comparisons. The study employed demographic variables (age, gender, home language, province of origin, marital status, level of education), as well as behavioural variables (average spending per person, length of stay,

repeat visitation, category participated in, initiator of participation, other tourist attractions visited, type of accommodation) to examine whether statistically significant differences existed among different groups.

RESULTS OF THE RESEARCH

This section provides an overview of the profile of the swimmers who participated in the Midmar Mile, presents an analysis of motives for participation, and discusses the results of the cluster analysis and K-means clustering.

Profile of swimmers in the Midmar Mile

As the results in Table 1 shows, swimmers who participated in the Midmar Mile were mainly male (59%), English-speaking (79%), not married (47%) and originated from either KwaZulu-Natal (59%) or Gauteng (30%). They were, on average, 32 years old, had a high level of education, traveled in large groups (typically 6 persons), and stayed only one night in Midmar. A participant spent on average R1 506.33 during the event. Swimmers had taken

part in the race an average of 4 times and also participated in other endurance events such as the Comrades Marathon.

TABLE 1: PROFILE OF MIDMAR MILE SWIMMERS

<p>Category Gender Language Age Marital status Level of education Occupation Group size Length of stay Average spending Province of origin Number of times participated Initiator of participation Other sports events participated in</p>	
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Profile of swimmers

Male (59%); Female (41%)

English (79%)

Average age of 32 years

Not married (47%); Married (44%)

Diploma/Degree (30%)

Student (31%) and Professional (26%) Average of 6 persons

Average of 1 night R1 506.33

KwaZulu-Natal (59%); Gauteng (30%)

First-time (33%); Average of 4 times

Self (46%)

1. Comrades Marathon
2. Old Mutual Two Oceans Marathon
3. Cape Argus Cycle Tour
4. Duzi Canoe

Results of the factor analysis

Using oblimin rotation with the Kaiser Normalisation, the pattern matrix of the principal component factor analysis identified three factors that were labelled according to similar characteristics (Table 2). The three factors accounted for 51% of the total variance. All factors had relatively high reliability coefficients, ranging from 0.68 (the lowest) to 0.84 (the highest). The average inter-item correlation coefficients, with values between 0.31 and 0.42, also implied internal consistency for all factors. Moreover, all items loaded on a factor with a loading greater than 0.3 and relatively high factor loadings indicate a reasonably high correlation between the delineated factors and their individual items. The Kaiser-Meyer-Olkin measure of sampling adequacy of 0.87 also indicated that patterns of correlation were relatively compact and yield distinct and reliable factors (Field, 2005:640).

Factor scores were calculated as the average of all items that contribute to a specific factor so that they could be interpreted on the original 5-point Likert scale of measurement. As shown in Table 2, the following motivational factors were identified:

TABLE 2: FACTOR ANALYSIS RESULTS OF MOTIVES TO PARTICIPATE IN THE MIDMAR MILE

Motivational factors and items	Factor loading	Mean value	Reliability coefficient	Average inter-item correlation
<i>Factor 1: Socialisation and escape</i> To spend time with friends	0.77	3.19	0.84	0.42

To relax	0.72			
To get away from routine	0.65			
To spend time with family	0.70			
It is a sociable event	0.59			
To meet new people	0.56			
The atmosphere of the Midmar Mile	0.52			
Because the whole family can participate	0.40			
<i>Factor 2: Fun and entertainment</i>		2.10	0.73	0.41
To explore a new area	0.81			
To meet well-known personalities	0.80			
Reason to visit KwaZulu-Natal	0.78			
It is an international event	0.63			
I am participating as part of a corporate team	0.56			
I must participate to qualify for the ironman/biathlon etc.	0.50			
<i>Factor 3: Intrinsic achievement</i>		3.45	0.68	0.31
The Midmar Mile is a huge challenge	0.61			
The Midmar Mile tests my level of fitness & endurance	0.41			
Because the event is well organised	0.63			
I do it annually	0.66			
Because I enjoy swimming	0.72			

Factor 1: Socialisation and escape

Socialisation and escape received the second highest mean value of 3.19, with a reliability coefficient of 0.84 and an average inter-item correlation of 0.42. *Socialisation* is supported by research done by Weiss and Duncan (1992), Croft *et al.* (1999), Jamber (1999), McDonald *et al.* (2002), Gillett and Kelly (2006), LaChausse (2006). Streicher and Saayman (2009) found that *Escape* was a major motivator for participating in a sporting event.

Factor 2: Fun and entertainment

Although Brodtkin and Weiss (1990) and Gillett and Kelly (2006) found that participants want their sport to be fun and entertaining, swimmers in the Midmar Mile considered this motive to be less important. The factor *Fun and entertainment* obtained the lowest mean value (2.10), with a reliability coefficient of 0.73 and an average inter-item correlation of 0.41.

Factor 3: Intrinsic achievement

Obtaining the highest mean value (3.45), *Intrinsic achievement* was the most important motive for participating in the Midmar Mile. The reliability coefficient was 0.68 and the average inter-item correlation was 0.31. Research by both Gill *et al.* (1983) and Streicher and Saayman (2009) found that participants were mainly motivated by intrinsic motives.

Results of the cluster analysis: Ward's method with Euclidean distances

To enhance the understanding of the factor structure, the motivation factors were subjected

to a hierarchical cluster analysis based on all cases in the data set. Using Ward's method and Euclidean distances, a hierarchical cluster analysis determined the clusters' structures based on the motivation factors. As the means of factor scores in Figure 1 shows, a distinction could be made between the two clusters. However, the two clusters only differed on the magnitude of factor scores and not on the motives to participate.

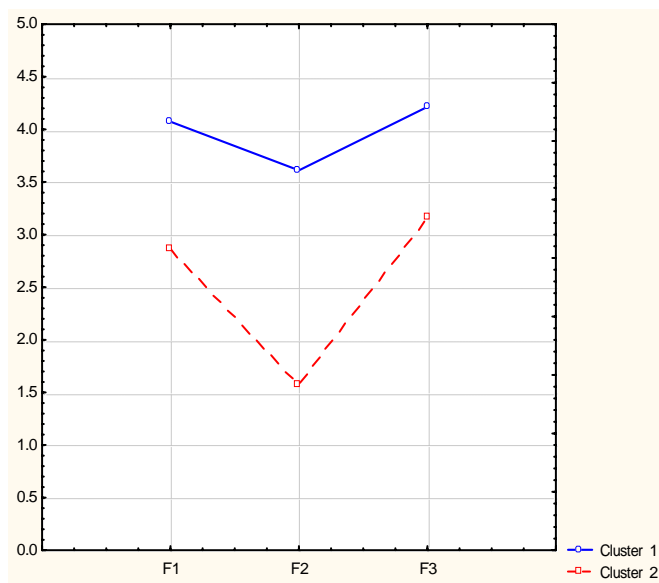


FIGURE 1: TWO CLUSTER SOLUTION: WARD'S METHOD WITH EUCLIDEAN DISTANCE MEASURES

This was verified by the ANOVA and Chi-square analyses. As shown in Table 3, Cluster 1 accounted for 80% of the respondents and Cluster 2 accounted for only 20%. Compared to Cluster 1, Cluster 2 rated all the motivational factors higher, especially *Fun and entertainment*. Based on the results, it seemed as if Cluster 2 was the *Zealous swimmers*, while Cluster 1 appeared to be the *Preponderant swimmers*.

TABLE 3: ANOVA AND TUKEY'S POST HOC MULTIPLE COMPARISONS OF RESULTS FOR MOTIVATIONAL FACTORS IN TWO CLUSTERS OF MIDMAR MILE PARTICIPANTS

Motivational factors	Cluster 1 <i>Zealous swimmers</i> (N = 307)	Cluster 2 <i>Preponderant swimmers</i> (N = 76)	F-ratio	Significant level
Socialisation and escape	2.83	4.14	0.054	0.816
Fun and entertainment	1.57	3.64	61.170	0.000*
Intrinsic achievement	3.12	4.28	0.508	0.476

Chi-square tests were used to determine whether significant demographic differences

existed between the two clusters. Table 4 shows that the two clusters differed significantly based on type of accommodation, future attendance intention and visits to tourist attractions in the area.

Cluster 1 seemed to consist mostly of local residents, while Cluster 2 appeared to be participants from other provinces (travelling further to attend the race) who also stayed in hotels. Cluster 2 was more likely to visit other tourist attractions in the area during their stay, while a larger percentage will also attend the event again. More participants in Cluster 1 indicated that they were unsure whether they would participate again and did not visit other tourist attractions.

TABLE 4: CHI-SQUARE TEST RESULTS OF TWO CLUSTERS OF MIDMAR MILE PARTICIPANTS

Characteristics	Cluster 1 Zealous swimmers (N = 307)	Cluster 2 Preponderant swimmers (N = 76)	Chi- square value	df	Sign. level	Phi- value
<i>Type of accommodation</i>						
Local resident	Yes=52%; No =48%	Yes=32% No =68%	14.225	1	0.000*	0.182
Hotel	Yes=3%; No =97%	Yes=10% No =90%	9.816	1	0.002*	0.151
<i>Attend again?</i>						
Yes, definitely	72%	87%	11.652	2	0.003*	0.166
No, definitely not	1%	1%				
Perhaps	27%	12%				
<i>Visit other tourist attractions?</i>						
Yes	21%	41%	17.595	1	0.000*	0.205
No	79%	59%				

Results of the K-means clustering

Based on the results obtained in the initial cluster analysis, the data was investigated further. Three distinct clusters appeared when the number of nights in Midmar was added to the hierarchical cluster analysis together with the motives to participate (as Figure 2 shows). Therefore, K-means clustering was used and K was set at 3.

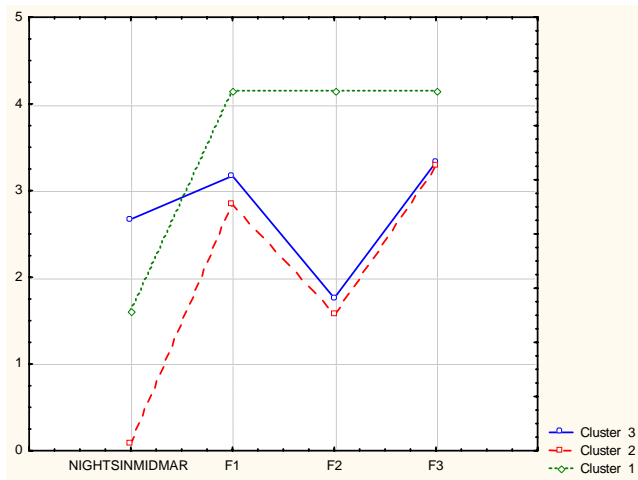


FIGURE 2: THREE CLUSTER SOLUTION: MOTIVES AND NUMBER OF NIGHTS IN MIDMAR

Table 5 shows the difference in means between the three clusters and reveals the importance of each of the motivational factors for each cluster’s participation. *Intrinsic achievement* received the highest mean value of all three clusters followed by *Socialisation and escape* and *Fun and entertainment*.

TABLE 5: ANOVA AND TUKEY’S POST HOC MULTIPLE COMPARISON RESULTS FOR MOTIVATIONAL FACTORS IN THREE CLUSTERS OF MIDMAR MILE PARTICIPANTS

Motives to participate	Cluster 1 <i>Devotees</i> N=93	Cluster 2 <i>Recreationists</i> N=228	Cluster 3 <i>Aficionados</i> N=139	F-ratio	Sig. level
<i>Socialisation and escape</i>	4.24 ^a	2.80 ^b	3.16 ^c	86.859	<0.0001
<i>Fun and entertainment</i>	4.09 ^a	1.58 ^b	1.78 ^b	316.375	<0.0001
<i>Intrinsic achievement</i>	4.34 ^a	3.16 ^b	3.33 ^b	58.931	<0.0001

* Statistically significant difference: $p \leq 0.05$

^a Group differs significantly from type (in row) where ^b is indicated

^c Group differs significantly from type (in row) where ^a and ^b are indicated

These results correspond with the results of the total group (Table 3). Cluster 1 contained 93 respondents (20%) and had the highest mean scores for all the motivational factors, and stayed on average between one and two nights in Midmar. All three motivational factors were considered extremely important, and participants came only for the race. This cluster was therefore labelled the *Devotees*. Cluster 2 contained 228 respondents (50%), representing the largest sample of the respondents, and had the lowest mean values across all three motivational factors. On average, these participants came only for the day of the

race or stayed one night, and were thus named the *Recreationists*. Cluster 3 had 139 respondents (30%) with approximately the same mean values for factors as Cluster 2, but relatively lower mean scores compared to Cluster 1. This cluster stayed three nights on average and was therefore labelled the *Aficionados*. A MANOVA was performed, which found that the three clusters at the Midmar Mile have statistically significant different motives for participating, based on the identified motivational factors and Wilks' Lamda ($p < 0.001$) (Table 6).

TABLE 6: ANOVA AND TUKEY'S POST HOC MULTIPLE COMPARISON RESULTS FOR MOTIVATIONAL FACTORS IN THREE CLUSTERS OF MIDMAR MILE PARTICIPANTS

Characteristics	Cluster 1 <i>Devotees</i> N=93	Cluster 2 <i>Recreationists</i> N=228	Cluster 3 <i>Aficionados</i> N=139	F-ratio	Sign. level
Age	30.60	31.68	31.51	0.292	0.7470
Spending per person (R)	704.00 ^a	343.85 ^b	1403.84 ^c	35.056	<0.0001
Group size	6.47	4.71 ^a	7.91 ^b	6.554	0.0020*
No. of people paid for	3.08	2.81	2.89	0.168	0.8480
No. of nights in Midmar	1.56 ^a	0.07 ^b	2.70 ^c	487.734	<0.0001
No. of years participated	4.87	4.13	4.07	1.056	0.3490

^oExpenditure per person (in Rand), which was calculated by adding the spending of the respondent on the various components, and dividing the total by the number of people that respondents^o indicated they were financially responsible for.

* Statistically significant difference: $p \leq 0.05$

^a Group differs significantly from type (in row) where ^b is indicated

^c Group differs significantly from type (in row) where ^a and ^b are indicated

Using ANOVAs to determine the differences in other characteristics of the participants, the analysis revealed that spending per person, group size and number of nights in Midmar differed significantly between the clusters (Table 6). The *Aficionados* (Cluster 3) spent significantly more money (mean=R1 403.84) compared to the *Devotees* (Cluster 1), who spent half that amount (mean=R704.00), and the *Recreationists* (Cluster 2), who spent the least (mean=R343.85). *Recreationists* (Cluster 3) attended the event with the largest travel party (mean=7.91 persons) compared to the *Recreationists* (Cluster 2) who travelled to the event with an average of 4.71 persons. The *Aficionados* (Cluster 3) stayed the most nights in Midmar (mean=2.70 nights), while the *Devotees* (Cluster 1) stayed an average of 1.56 nights. *Recreationists* (Cluster 2) did not stay over in Midmar and were most probably local residents. The clusters showed no significant difference in the number of people paid for, age and number of years participated in the Midmar Mile. As Table 6 shows, participants in all 3

clusters were in their early thirties, paid for an average of 3 persons and had participated in the event between 4 and 5 times.

Two-way frequency tables were constructed to provide a complete demographic profile for each of the three clusters, and Chi-square tests were used to determine whether significant demographic differences existed between them ($p < 0.05$). Table 7 provides a summary of

the profile of the three clusters based on various demographic and behavioural variables. Statistically significant differences were found for language, province, type of accommodation, initiator of participation (friends), future attendance and other tourist attractions attended.

The participants were mostly English speaking, but more *Aficionados* (Cluster 3) and *Devotees* (Cluster 1) speak Afrikaans than *Recreationists* (Cluster 2). It is clear that *Recreationists* (Cluster 2) were local residents living in Midmar or in the nearby region of Pietermaritzburg, since 94% of the respondents in this cluster resided in KwaZulu-Natal. *Aficionados* (Cluster 3) included participants from all over the country, although most were from Gauteng, while *Devotees* (Cluster 1) included a high percentage of participants from KwaZulu-Natal and Gauteng, as well as international participants. The type of accommodation confirms that *Recreationists* (Cluster 2) were local residents (77%). While a significant proportion of *Devotees* (Cluster 1) were local residents (32%), non-local participants preferred to stay in guesthouses or bed and breakfast establishments (22%), with family and friends (11%), or camping (11%). *Recreationists* (Cluster 2) also preferred to stay at guesthouses or bed and breakfast establishments (41%) or with family and friends (21%).

Devotees (Cluster 1) were the most likely to attend the event again (87%), followed by *Aficionados* (Cluster 3) (80%), while *Recreationists* (Cluster 2) were more uncertain (30%). *Devotees* (Cluster 1) and *Aficionados* (Cluster 3) also visited other tourist attractions while in the area (43% and 44% respectively). With regard to the initiator of participation, friends convinced more *Aficionados* (Cluster 3) (37%) than *Recreationists* (Cluster 2) (23%) and *Devotees* (Cluster 1) (16%).

No statistically significant differences existed between the three clusters based on gender, marital status, level of education or category participated in. More male swimmers were represented in all three clusters. The majority of participants in each cluster had a matric certificate or a diploma/degree, while school participants were *Devotees* (Cluster 1). *Devotees* (Cluster 1) mainly participated in four categories at the event: Company team (19%), Non-company team (15%), Family team (16%) and Men 31+ years (18%). Similarly, *Recreationists* participated in the categories Company team (16%), Non-company team (18%), Family team (13%) and Men 31+ years (16%), and also took part in the Women 31+ year's category (12%). *Aficionados* (Cluster 3) mainly participated in the Non-company category (27%), followed by Men 31+ years (19%), Family team (17%), Women 31+ years and Company team (14% respectively).

FINDINGS AND IMPLICATIONS

Swimmers at the Midmar Mile were motivated by *Socialisation and escape, Fun and entertainment* and *Intrinsic achievement*. The cluster analysis, which segmented participants

according to these motives, revealed three distinct segments that were labelled: *Devotees, Aficionados* and *Recreationalists*. Across all three clusters, *Intrinsic achievement* was the most important motive for participating in the Midmar. However, in addition to being goal-

orientated, participants were also driven by the need for social interaction and escape. The relative under-emphasis of *Fun and entertainment* by all clusters contradicts the findings of Buchanan and Dann (2006) that fun and enjoyment are the most important reasons for participating in action sport.

Based on these findings, the following implications are evident:

- (1) Travel motives, and therefore clusters of participants, differ from one event to another, which means that what attracts participants to one event may not necessarily work for another. Marketers and event organisers therefore have to determine the main motives and markets at their particular sport event. The goals of the event must also be taken into consideration. For example, this type of analysis is of paramount importance for an event that is used as a way of extending the tourism season or generating „new money“.
- (2) Both *Devotees* and *Aficionados* could be regarded as viable segments with long-term financial and sustainable prospects. *Devotees* appeared to be the most loyal and determined participants, with the highest mean values across all motivational factors and had participated in the event most times. However, *Aficionados* spent significantly more money, travelled further and in larger groups, and stayed more nights in Midmar. The *Recreationists* represented the largest sample of participants at the event, but were mostly local residents and had a minimal economic impact.

The implication is that marketers of the Midmar Mile should follow a two-pronged approach. The priority should be to attract more *Devotees* and *Aficionados* to the event, so that the event will have a greater economic impact in the region and benefit more people. The second strategy should be to give *Recreationists* (local market), the opportunity to participate in and support a major event. *Recreationists* are also cheaper to attract, as marketers can communicate with potential participants through schools. Both marketing campaigns must combine the achievement of personal (intrinsic) goals with socialisation and escape.

As repeat participation is imperative for the continued success of the Midmar Mile, ways need to be found to retain current loyal participants and, most importantly, encourage others to return. One way could be to introduce a „loyalty club“ (a mile-long club), where members can accumulate discounts on, for example, registration fees and accommodation, based on the number of times they have participated in the event.

- (3) *Devotees* and *Aficionados* also visited other tourist attractions in the area during their stay, and therefore have the potential to contribute positively to tourism in the region. Tourist attractions in the area should thus be marketed more extensively to participants. Information should be made available to them on the website, at accommodation establishments and in the form of brochures. Special tour packages of the area could also be compiled, which would further enhance the fulfilment of participants“ need for socialisation and escape.

TABLE 7: CHI-SQUARE RESULTS OF THE THREE MIDMAR MILE PARTICIPANT CLUSTERS

Characteristics	Cluster 1 Devotees N=93	Cluster 2 Recreationists N=228	Cluster 3 Aficionados N=139	Chi-square value
Gender				5.458
Male	68%	54%	60%	
Female	32%	46%	40%	
Language				24.933
Afrikaans	21%	12%	33%	
English	78%	87%	65%	
Other	1%	1%	1%	
Province				235.475
KwaZulu-Natal	48%	94%	13%	
Gauteng	37%	5%	66%	
Free State	5%	1%	9%	
Western Cape	1%	0%	4%	
Mpumalanga	4%	0%	3%	
Northern Cape	1%	0%	2%	
North West	0%	0%	1%	
Limpopo	0%	0%	1%	
Outside RSA	3%	0%	1%	
Marital status				7.729
Married	46%	45%	43%	
Not married	42%	48%	50%	
Divorced	6%	6%	5%	
Widow/er	2%	0%	1%	
Living together	5%	2%	2%	

TABLE 7: CHI-SQUARE RESULTS OF THE THREE MIDMAR MILE PARTICIPANT CLUSTERS (cont.)

Characteristics	Cluster 1 Devotees N=93	Cluster 2 Recreationists N=228	Cluster 3 Aficionados N=139	Chi-square value
Level of educ.				19.541
No school	3%	2%	3%	
Matric	33%	21%	21%	
Diploma/degree	25%	34%	27%	
Post-graduate	10%	16%	21%	
Professional	9%	13%	17%	
Scholar	20%	14%	12%	
Type of accom.				179.989
Local resident	Yes=32%; No=68%	Yes=77%; No= 23%	Yes= 7%; No=93%	
Family or friends	Yes=11%; No=89%	Yes= 7%; No= 93%	Yes=21%; No=79%	17.115
Guesthouse/B&B	Yes=22%; No=78%	Yes= 5%; No= 95%	Yes=41%; No=59%	71.051
Hotel	Yes=12%; No=88%	Yes= 1%; No= 99%	Yes= 9%; No=91%	19.378
Camping	Yes=11%; No=89%	Yes= 1%; No= 99%	Yes= 9%; No=91%	18.484
Rent full house	Yes= 4%; No=96%	Yes= 0%; No=100%	Yes= 6%; No=94%	9.812
Initiator of partic.				6.725
Self	Yes=56%; No=44%	Yes=48%; No= 52%	Yes=39%; No=61%	

Spouse	Yes= 1%; No=99%	Yes= 0%; No=100%	Yes= 1%; No=99%	1.944
Media	Yes= 2%; No=98%	Yes= 0%; No=100%	Yes= 1%; No=99%	4.293
Friends	Yes=16%; No=84%	Yes=23%; No= 77%	Yes=37%; No=63%	20.266
Children	Yes= 7%; No=93%	Yes= 9%; No= 91%	Yes= 5%; No=95%	1.901
Club	Yes= 5%; No=95%	Yes= 9%; No= 91%	Yes= 6%; No=94%	2.197
Organisation	Yes= 2%; No=98%	Yes= 4%; No= 96%	Yes= 1%; No=99%	1.553

TABLE 7: CHI-SQUARE RESULTS OF THE THREE MIDMAR MILE PARTICIPANT CLUSTERS (cont.)

Characteristics	Cluster 1 Devotees N=93	Cluster 2 Recreationists N=228	Cluster 3 Aficionados N=139	Chi-square value
Category				
Ironman/woman	Yes= 7%; No=93%	Yes= 4%; No= 96%	Yes= 7%; No=93%	2.475
Biathlon	Yes= 5%; No=95%	Yes= 2%; No= 98%	Yes= 3%; No=97%	7.165
Disabled	Yes= 2%; No=98%	Yes= 0%; No=100%	Yes= 1%; No=99%	4.293
Company team	Yes=19%; No=81%	Yes=16%; No= 84%	Yes=14%; No=86%	1.351
Non comp. Team	Yes=15%; No=85%	Yes=18%; No= 82%	Yes=27%; No=73%	5.525
Family team	Yes=16%; No=84%	Yes=13%; No= 87%	Yes=17%; No=83%	1.246
Woman 31+ years	Yes= 4%; No=96%	Yes=12%; No= 88%	Yes=14%; No=86%	6.085
Men 31+ years	Yes=18%; No=82%	Yes=16%; No= 84%	Yes=19%; No=81%	0.858
Attend again				13.970
Yes, definitely	87%	69%	80%	
No, definitely not	1%	1%	1%	
Perhaps	12%	30%	19%	
Visit other tourist attractions				68.725
Yes	43%	9%	44%	
No	57%	91%	56%	

CONCLUSION

This study determined the motives of swimmers for participating in the Midmar Mile and clustered the participants according to these motives. This type of research was conducted for the first time at a swimming event in South Africa and only the second time at a sporting event in the country. In their study of the motives of cyclists at the Cape Argus Cycle Tour, Streicher and Saayman (2009:12) revealed five motives: *Socialisation, Event attractiveness, Personal motivation, Escape and relaxation* and *Event attributes*. Comparing the results of these two studies, it is clear that swimmers and cyclists have significantly different motives for participating in their respective sport. However, Midmar Mile swimmers' motives are primarily intrinsic, which supports Streicher and Saayman (2009) findings. This study confirms the argument that motives for participating differ according to the sporting event, and supports the view that marketers and sport event organisers must understand that participants have different motives and so should not be regarded as a homogenous group (Hinch & Higham, 2004; Weed & Bull, 2004).

The contribution of this research is threefold: (1) from a methodological point of view, capturing data from a questionnaire and then applying K-means clustering is an effective way of clustering participants at a sport event; (2) identifying the unique motives of swimmers at an open-water swimming event, and determining the different groups/segments of participants at such an event; and (3) thereby comprehensively profiling swimmers at the event. The Midmar Mile organisers and marketers can use these research findings to develop an effective marketing strategy that satisfies the needs and wants of the swimmers, and increase the event's economic impact, which is important for the event's sustainability. This type of research is valuable to sport events, as it assists in making informed and cost-effective marketing and product development decisions. It is thus recommended that similar research (comparing participants' motives and whether they are primarily intrinsic, extrinsic or a combination) be undertaken for other South African sporting events.

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DIE INVLOED VAN DEELNAME AAN FISIEKE AKTIWITEIT TYDENS VRYETYD OP DIE KORONÊRE RISIKO-, LEWENSTYL- EN GESONDHEIDSTATUS-INDEKS VAN WERKNEMERS BY 'N FINANSIËLE INSTELLING

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ABSTRACT

A sedentary lifestyle can lead to the development of hypokinetic diseases, which include risk factor development of coronary heart diseases, which can lead to ill health and reduced productivity. This study analysed the impact of leisure-time physical activity (LTPA) on indices of health status (HSI), lifestyle (LSI) and coronary risk (CRI) amongst employees in a financial institution. The sample included 475 employees (159 males; 316 females) with a mean age of 35.8 ± 8.6 and

35.1 ± 8.5 years respectively, divided into three age groups of ≤35, 36 – 45 and ≥46 years. Results indicated that men and women in the moderate- and high-active groups showed significantly better LSI in all the age groups compared to their counterparts in the low-active group. Only men aged ≥46 years present a significantly better CRI in the high-active group. The HSI showed no significant changes. The male high-active group tended to be better than the low-active group. The CRI of the women indicated no tendencies between the low- and high-active groups. The findings suggest the need for employers to implement wellness strategies including the enhancement of the physical activity status of the employee to ensure a healthier and more productive workforce. Further research in the field of corporate health and wellness is of paramount importance.

Keywords: Physical activity; Health status; Coronary risk factors; Lifestyle habits; Corporate sector; Hypokinetic disease.

INLEIDING

Die hedendaagse sakesektor is hoogs kompetierend en beide die bestuurskorps en die werknemers verkeer onder volgehoue werksdruk ten einde beter te presteer (Rothmann *et al.*, 2004). Laasgenoemde beweer dat volgehoue werksdruk die werknemers fisiek en geestelik kan uitput en dat veral die tendense van herstrukturering, regstellende aksie en afskaling werknemers meer onseker en bedreig kan laat voel. Hierdie situasie kan daartoe aanleiding gee dat werknemers fisiek meer onaktief raak, wat insgelyks hul gesondheidstatus kan laat verswak en hul produktiwiteit kan laat afneem (SA Hartstigting, 2005). Strydom (2005) verwys in hierdie verband na hipokinetiese siektes (siektes as gevolg van „n gebrek aan fisieke aktiwiteit) wat die risiko vir die ontwikkeling van koronêre hartvatsiekte kan verhoog. Volgens Uys en Coetzee (1989) is Suid-Afrikaanse bestuurslui hoofsaaklik sedentêr in die

uitvoering van hul dagtaak en beskou slegs 12.4% van manlike bestuurslui in Suid-Afrika sport en fisieke aktiwiteit as hoë prioriteit. Dreyer (1996) het vasgestel dat 29% van Suid-Afrikaanse manlike bestuurslui drie, 43% twee en 25% een van die primêre risikofaktore vir die ontwikkeling van koronêre hartvatsiekte getoon het.

Volgens Steyn *et al.* (2006), word die Westerse leefstyl deur verskeie destruktiewe gewoontes, byvoorbeeld sigareetrook, oormatige alkoholverbruik, inname van vetterige kosse en oormatige soutinname gekenmerk. Hierdie navorsers beweer voorts dat Suid-Afrika vinnig op pad is om die land met die hoogste voorkoms van oormassa en obesiteit as gevolg van dié destruktiewe lewensgewoontes te word. Scott (1999) wys daarop dat deelname aan fisieke aktiwiteit nie net fisieke fiksheid kan bevorder nie, maar ook beskerming teen die ontwikkeling van koronêre hartvatsiekte kan bied. Sodanige beskerming kan selfs in die teenwoordigheid van primêre koronêre risikofaktore plaasvind (Barlow *et al.*, 1990).

Die gesondheidstatus van die werknemer is van kritieke belang ten opsigte van die produktiwiteit van enige maatskappy aangesien presenteeisme („n toestand wat ontstaan wanneer „n werker as gevolg van siekte of bepaalde gesondheidsrisiko“s nie optimale werksproduksie kan lewer nie, maar steeds by die werk is), verlaagde produktiwiteit en verhoogde gesondheidsorgkoste vir die maatskappy kan meebring (Edington & Burton, 2003). Verder word ook aangetoon dat presenteeisme tans die grootste oorsaak van indirekte

gesondheidsorgkoste uitmaak (Edington & Burton, 2003). Een van die maniere waarop maatskappye tans poog om die gesondheidstatus van werknemers te verbeter, is deur die fisieke vermoë van die werkers te verbeter (Messer *et al.*, 2000). Dit kan dikwels ook aanleiding gee tot ander gesondheidsverbeteringe in die werkers se leefstyl. Sodoende kan deelname aan fisieke aktiwiteit as „ontstekingsmeganisme“ beskou word vir die handhawing van „n gesonde leefstyl (Shephard, 1986). Navorsing toon verder dat die produktiwiteit van werkers wat gereeld aan fisieke aktiwiteit deelneem, beter is as dié van diegene wat onaktief is (Labuschagne, 2006:37):

“Exercisers can work at full efficiency for the entire day whilst non-exercisers lost 50% efficiency for the final two hours of their workday. Exercisers also showed greater stamina, performance, concentration and decision-making abilities than non-exercisers”.

Volgens Labuschagne *et al.* (2007), toon werkers by „n spesifieke finansiële instelling bepaalde gesondheidsrisiko“’s reeds op „n ouderdom ≤ 35 jaar. Hulle dui aan dat beide mans en vroue fisiek laag-aktief is en in die matige kategorie ten opsigte van hulle leefstyl-, gesondheidstatus- en koronêre risiko-profiel val. Hierdie situasie kan veroorsaak dat werknemers hipokinetiese siektes, wat hulle gesondheid asook werksproduktiwiteit nadelig kan beïnvloed en gesondheidsorgkoste kan verhoog, ten prooi val (Strydom, 2005). Cowan *et al.* (2004) beweer in hierdie verband dat die gevaar bestaan dat indien daar nie bepaalde intervensieprogramme aan hierdie „matig gesonde“ werknemers gebied word nie, hulle namate hulle ouer word, hoër risiko“’s vir koronêre hartsiektes kan ontwikkel. In dié verband wys Musich *et al.* (2003) daarop dat 2-4% van werknemers jaarliks na „n „swakker“ gesondheidskategorie kan verskuif indien hulle nie aan doelgerigte gesondheidsbevorderende intervensie blootgestel word nie. Dit is derhalwe ook noodsaaklik om diegene met „n laerisiko-beeld nie te negeer nie, maar ook by intervensieprogramme te betrek.

Navorsing rakende die belangrikheid van fisieke intervensie in die korporatiewe sektor hier te lande staan nog in sy kinderskoene; derhalwe word met hierdie ondersoek gepoog om „n bydrae in hierdie verband te lewer. Die doel van hierdie studie is gevolglik om die invloed van deelname aan fisieke aktiwiteit tydens vryetyd op die koronêre risiko-, lewenstyl- en gesondheidstatus-indekse by mans en vroue werksaam by „n finansiële instelling, te ondersoek.

METODES EN PROSEDURES

Steekproef

„n Totaal van 475 werknemers (159 mans; 316 vroue) tussen die ouderdomme 18 en 58 jaar is by hierdie studie betrek. Die werknemers was almal by die finansiële korporatiewe sektor werksaam. Die gemiddelde ouderdom van die mans was 35.8 ± 8.6 jaar en die van die vroue 35.1 ± 8.5 jaar. Aangesien almal in die steekproef reeds in diens van die maatskappy was en die maatskappy beleid nie tussen etniese groepe onderskeid tref nie, was die groep as „n enkele populasie bestudeer. Die aanbieding van intervensiestrategieë word ook nie deur etniese groeperinge geraak nie, maar word bepaal deur die behoefte wat in die werknemerkorps bestaan. Dit was „n verdere rede waarom die steekproef as synde homogeen hanteer is.

Die steekproef is in verskillende ouderdomsgroepe ingedeel ten einde die profiele so betroubaar moontlik te maak. Dit is bekend dat die lewensgewoontes van werknemers kan verskil ooreenkomstig die ouderdomsgroep waaronder hulle ressorteer (Shephard, 1986), en intervensiestrategieë moet ook dienooreenkomstig aangepas en geïmplementeer word sodat dit vir die volledige ouderdomspektrum van die werkers aanvaarbaar kan wees. Die volgende ouderdomsindeling is vir die doel van hierdie studie gebruik: ≤ 35 , 36–45 en ≥ 46 jaar. Die eerste groep (≤ 35 jaar) verteenwoordig die jong groep wat besig was om „n lewenstyl te vestig en wat normaalweg in die juniorange werk. Die groep, 36–45 jaar, verteenwoordig diegene wat reeds „n gevestigde leefstyl handhaaf en hulle dikwels in die middelvlakbestuur bevind, terwyl die ouer groep (≥ 46 jaar) dié verteenwoordig wat reeds die kliniese horison bereik het (Rowland, 1990) waar chroniese leefstilsiektes kan begin manifesteer. Hierdie groep werkers verteenwoordig dikwels diegene wat reeds in die seniorange van die maatskappy begin inbeweeg.

Meetinstrumente

Om die tersaaklike inligting in te samel is van die volgende vraelyste, wat aan die vereistes vir geldigheid en betroubaarheid (Thomas & Nelson, 2001) voldoen, gebruik gemaak:

- Die **fieseke-aktiwiteitsvraelys van Sharkey en Gaskill (2007)** is gebruik om die fieseke-aktiwiteitsdeelname gedurende die vryetyd van die respondente te bepaal. Deelname aan fieseke aktiwiteit word volgens dié metode as „n indeks (FAI) uitgedruk deur numeriese waardes aan die inoefeningsvereistes, naamlik intensiteit, duur en frekwensie van deelname, toe te ken en hierdie drie waardes met mekaar te vermenigvuldig. „n Gemiddelde waarde word bereken tussen somer- en winterdeelname wat dan as die indeks van die individu beskou word. Die respondente is op grond van hul FAI in drie

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groepe ingedeel, naamlik: FAI ≤ 16 =laag-aktief; FAI=17–44=matig-aktief; en FAI ≥ 45 =hoog-aktief (Labuschagne, 2006).

- Die **lewenstyl-vraelys van Belloc en Breslow (1972)** is vir die evaluering van leefstyl gebruik. Die respondente moes „ja“ of „nee“ met betrekking tot die handhawing van 7 basiese lewenstylgewoontes antwoord (nie rook nie, matige fieseke aktiwiteit 2 tot 3 keer per week, matige of geen alkoholname nie, 7–8 uur slaap per nag, matige liggaamsgewig handhaaf, daaglik onthou en gereeld 3 maaltye per dag nuttig). Die lewenstylindeks (LSI) is verkry deur die aantal positiewe aanduidings bymekaar te tel.
- Die **siektegradering-skaal van Wyler *et al.* (1968)** is aangewend om die gesondheidsstatus-indeks (GSI) van die proefpersone te bepaal. Die gradering van die ernstigheidsgraad weerspieël die prognose, duur, lewensbedreiging, ongeskiktheidsgraad en mate van ongemak wat as gevolg van die siekte ondervind word. Die skaal bestaan uit 126 items waarop die mees algemene siektes en simptome gelys is. Volgens die skaal moes respondente die siektes wat hulle die afgelope jaar gehad het, aandui. „n Ernstigheidsgraad-indeks is aan elke siekte of simptome toegeken wat dan in „n indeks kulmineer (Boshoff, 2000).

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- Die **koronêre risiko-indeksvraelys van Björstrom en Alexiou (1978)** is gebruik om die koronêre risiko-indeks (KRI) van die respondente te bepaal. Die vraelys bevat 14 erkende toestande wat reeds as risiko's vir die ontwikkeling van koronêre hartvatsiekte aanvaar word. Die ernstigheidsgraad binne elke risikofaktor word bepaal, wat dan numeries belaaï word. Die waardes wat aan elke risikofaktor toegeken word, word bymekaar getel om „n totale waarde te verkry wat die moontlikheid van die ontwikkeling van koronêre hartvatsiekte aandui (Kriel, 2004).

Statistiese verwerking

Die Statistica Rekenaarpakket (Statsoft Inc., 2002) van die Noordwes-Universiteit, Potchefstroomkampus, is vir die statistiese verwerking van die data gebruik. Die verband van FAI met GSI, LSI en KRI is met behulp van eenrigtingvariëansie-analise bepaal (Field, 2005). Nadat statistiese betekenisvolheid ($p \leq 0.05$) bepaal is, is die Tukey *post hoc*-toets aangewend om te bepaal watter groepe betekenisvol van mekaar verskil (Thomas & Nelson, 2001). Die praktiese betekenisvolheid is bepaal aan die hand van die formule van Cohen se effekgrootte-berekening (EG). Hoog ($EG \geq 0.8$) en matig ($EG \geq 0.5$) prakties betekenisvolle verskille is aangedui (Steyn, 2002).

RESULTATE

Die beskrywende statistiek van die respondente word in Tabel 1 weergegee.

Uit Tabel 1 blyk dit dat die enigste betekenisvolle verskil wat tussen die verskillende ouderdomsgroepe by mans en vroue voorgekom het, by die LSI was en wel tussen ≤ 35 jaar vs ≥ 46 jaar. Hoewel die gemiddelde waardes van die res van die indekse nie betekenisvol verskil het nie, kom daar bepaalde tendense voor wat tog van belang mag wees en wat verdere navorsing in die korporatiewe sektor noodsaak ten einde toereikende antwoorde te vind. So, byvoorbeeld, het die jong groep mans die laagste FAI by die mans getoon, terwyl dit by die

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vroue die oudste groep (≥ 46 jaar) was wat die laagste FAI getoon het. Wat die GSI betref, bestaan daar „n konsekwente tendens dat die GSI verhoog (verswak) het namate ouderdom toegeneem het, terwyl die KRI ook daarop gedui het dat die jongste groep (mans en vroue) die laagste (beste) indeks getoon het.

TABEL 1: BESKRYWENDE STATISTIEK VAN GESONDHEIDSKONSTRUKTE BY MANS EN VROUEN AAN 'N FINANSIËLE INSTELLING

Parameters	MANS					VROUEN				
	N	RG	SA	Mi n	Maks	N	RG	SA	Mi n	Maks
Ouderdom (jr)	159	35.8	8.6	21	58	316	35.1	8.5	18	58
FAI										

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≤35	93	31.7	34.4	0	160	186	22.7	34.8	0	192
36-45	38	33.5	43.5	0	192	81	17.6	27.7	0	127
≥46	28	33.4	38.3	0	156	45	17.1	23.7	0	86
GSI										
≤35	93	137.4	127.3	0	737	188	203.3	172.4	0	809
36-45	38	177.8	179.0	0	771	83	178.0	178.7	0	1219
≥46	28	188.0	150.8	0	691	47	241.0	188.8	0	793
LSI										
≤35	93	*4.3	1.6	0	7	187	4.4	1.6	0	7
36-45	38	4.2	1.7	1	7	82	4.3	1.5	0	7
≥46	28	*5.1	1.7	1	7	47	4.5	1.7	0	7
KRI										
≤35	93	23.7	7.1	9	49	187	22.9	6.5	10	50
36-45	38	24.9	6.6	12	42	83	23.1	5.5	12	46
≥46	28	24.0	7.7	14	46	47	24.0	7.2	13	48

*: $p \leq 0.05$

FAI: Fisieke-aktiwiteitsindeks
GSI: Gesondheidstatus-indeks

LSI: Lewenstylindeks
KRI: Koronêre risiko-indeks

In Tabel 2 word die invloed van deelname aan vryetyd fisieke aktiwiteit op die koronêre risiko-, gesondheidstatus- en leefstylindeks by mans aangedui.

Wat die **KRI** by die mans betref, blyk dit dat daar slegs in die ouderdomsgroep ≥ 46 jaar „n matige prakties betekenisvolle verskil ($EG \geq 0.5$) tussen die laag- vs hoog-aktiewe groep bestaan het. Hoewel nie betekenisvol nie, het die hoog-aktiewe groep in die jonger leeftyd (≤ 35 ; 36-45) „n tendens van „n laer (beter) KRI vergeleke met die laag-aktiewe groep getoon. In die **GSI** het daar eweneens geen betekenisvolle verskille tussen die laag- vs hoog-aktiewe mans in enige van die ouderdomsgroepe voorgekom nie, alhoewel „n konsekwente tendens

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van „n laer (beter) gesondheidstatusindeks egter in bogenoemde gevalle voorgekom het. Wat die **LSI** betref, het daar statisties en prakties betekenisvolle ($p \leq 0.05$) verskille tussen die laag- vs hoog-aktiewe groepe in die ouderdomsgroepe ≤ 35 en ≥ 46 jaar voorgekom. Die groep 36-45 jaar het „n prakties en statisties betekenisvolle ($p \leq 0.05$) verskil tussen die laag- en matig-aktiewe groep getoon.

TABEL 2: INVLOED VAN FISIEKE AKTIWITEITSDEELNAME OP ENKELE GESONDHEIDSKONSTRUKTE BY MANS (N=159) AAN 'N FINANSIËLE INSTELLING

Parameters Ouderdom	LAAG-AKTIEF			MATIG-AKTIEF			HOOG-AKTIEF		
	n	RG	SA	n	RG	SA	n	RG	SA
KRI									

≤ 35	43	24.4	7.3	19	21.9	6.3	31	23.7	7.3
36 – 45	18	25.3	5.6	9	25.6	9.0	11	23.6	6.3
≥ 46	14	26.9	8.9	5	18.6	5.7	9	22.2	4.2
Totale groep	75	25.5	7.3	33	22.0	7.0	51	23.2	5.9
GSI									
≤ 35	43	143.5	149.0	19	159.5	101.8	31	115.3	107.5
36 – 45	18	187.4	152.5	9	180.2	188.8	11	160.2	223.7
≥ 46	14	225.9	111.7	5	237.0	289.3	9	101.8	47.3
Totale groep	75	185.6	137.7	33	192.2	193.3	51	125.8	126.2
LSI									
≤ 35	43	3.5	1.5	19	4.8	1.6	31	5.3	0.9
36 – 45	18	3.4	1.4	9	5.2	1.2	11	4.6	1.9
≥ 46	14	4.4	1.7	5	5.0	1.6	9	6.4	0.7
Totale groep	75	3.8	1.5	33	5.0	1.5	51	5.4	1.2

NOTA: Betekenisvolle verskille met groepe word onder die gemiddelde waarde in elke groep aangedui deur die groepkode van die groep waar die betekenisvolle verskille voorkom, gevolg deur „n +, * of **
 Statisties betekenisvolle verskille ($p \leq 0.05$) word met + aangedui
 Die * dui matig prakties betekenisvolle verskille aan ($EG \geq 0.5$)
 Die ** dui hoog prakties betekenisvolle verskille aan ($EG \geq 0.8$)

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Soos in die geval by die mans, het daar by die vroue geen betekenisvolle verskille rakende die invloed van fisieke aktiwiteitsdeelname in die KRI en GSI voorgekom nie. In die LSI van die laag vs hoog-aktiewe groepe het daar statisties betekenisvolle ($p \leq 0.05$) verskille by die groep ≤ 35 jaar en prakties betekenisvolle verskille by die groepe 36-45 jaar en ≥ 46 jaar voorgekom.

TABEL 3: INVLOED VAN FISIEKE AKTIWITEITSDEELNAME OP ENKELE GESONDHEIDSKONSTRUKTE BY VROUE (N=311) AAN 'N FINANSIËLE INSTELLING

Parameters	LAAG-AKTIEF			MATIG-AKTIEF			HOOG-AKTIEF		
	n	RG	SA	n	RG	SA	n	RG	SA
Ouderdom									

KRI									
≤ 35	110	23.3	5.8	43	21.6	6.6	32	22.4	9.9
36 – 45	51	a 23.6	5.4	18	b 22.4	5.3	12	c 23.0	6.6
≥ 46	27	d 24.5	6.2	12	e 21.6	6.5	6	f 28.3	10.4
Totale groep	188	g 23.8	5.8	73	h 21.9	6.1	50	i 24.6	9.0
		j			k			l	
GSI									
≤ 35	110	204.3	184.5	43	196.6	159.4	32	223.9	159.1
36 – 45	51	m 192.7	204.1	18	n 169.7	108.9	12	o 147.7	158.4
≥ 46	27	p 251.8	179.9	12	q 175.5	135.8	6	r 252.2	297.9
Totale groep	188	s 216.3	189.5	73	t 180.6	134.7	50	u 207.9	205.1
		v			w			x	
LSI									
≤ 35	110	3.9	1.4	43	4.8	1.4	32	5.4	1.7
36 – 45	51	y z+,* aa+,**	1.4	18	z aa+,*	1.2	12	aa y+,**	1.8
≥ 46	27	ab ad* ac*	1.5	12	ac ab*	2.0	6	ad ab*	1.4
Totale groep	188	ae ag** ah ai+,*	1.4	73	af 4.8 ai ah+,*	1.5	50	ag ae** aj 5.2	1.6

NOTA: Betekenisvolle verskille met groepe word onder die gemiddelde waarde in elke groep aangedui deur die groepkode van die groep waar die betekenisvolle verskille voorkom, gevolg deur „n +, * of **
 Statisties betekenisvolle verskille ($p \leq 0.05$) word met + aangedui
 Die * dui matig prakties betekenisvolle verskille aan ($EG \geq 0.5$)
 Die ** dui hoog prakties betekenisvolle verskille aan ($EG \geq 0.8$)

BESPREKING

Uit Tabel 1 blyk dit dat die **FAI** by die mans en vroue verskil het wanneer die verskillende ouderdomsgroepe met mekaar vergelyk is. Hoewel die verskille nie betekenisvol was nie, moet daar tog kennis geneem word van die tendense wat voorgekom het. By die mans het die tendens voorgekom dat die **FAI** hoër was by die ouer groepe as by die jong groep werknemers (≤ 35 jaar), terwyl dit by die vroue net andersom voorgekom het. In hierdie geval het die jonger groep die hoogste **FAI** (34.8), terwyl die oudste groep die laagste **FAI** (23.7) getoon het. Laasgenoemde tendens kom ook by die algemene populasie voor, naamlik dat fisieke-aktiwiteitsdeelname afneem namate die persoon ouer word (Strydom *et al.*, 1991).

Die rede vir die tendens by die mans mag moontlik verband hou met die feit dat die ouer groep mans in die organisasie reeds goed geskool was in aspekte van besigheidsbestuur, werksdelegering en tydsbestuur, asook dat hulle op hierdie leeftyd in baie gevalle ook reeds seniorposte in die organisasie beklee het en hulle vanweë die maatskappy se welstandinisiatiewe die waarde van fisieke aktiwiteit reeds besef het (Labuschagne, 2006). „n Verdere rede mag ook wees dat diegene in hierdie ouderdomsgroep reeds die „kliniese horison“ bereik het waar bepaalde afwykings begin manifesteer wat die ouderdomsgroep meer bewus gemaak het van gesonde leefstyl en gewoontes. In dié verband wys Thomas *et al.* (1981) daarop dat seniorwerknemers meer geneig is om aan fisieke aktiwiteit deel te neem as hul jonger eweknieë. Alhoewel vroue in hierdie ouderdomsgroep ook dikwels reeds in die senierrange van ’n maatskappy inbeweeg het, was die tendens ten opsigte van FAI by hulle die teenoorgestelde as dié van die mans. ’n Moontlike rede hiervoor kan wees dat die vroue ook nog familie-verpligtinge moet nakom en derhalwe nie voldoende tyd vir fisieke aktiwiteit kan vind nie (Wilders, 2002).

Met betrekking tot die **GSI** was daar ook geen betekenisvolle verskille tussen die verskillende ouderdomsgroepe by die mans en vroue nie. Ook hier was „n konsekwente tendens waargeneem, naamlik dat die jonger groep (≤ 35 jaar) „n beter GSI as die ouer groep (≥ 46 jaar) getoon het wat waarskynlik met die verhoogde prevalensie van veral chroniese siektetoestande namate die mens ouer word verband hou (Leenders, 2009). Die betekenisvolle beter LSI wat by die mans ≤ 35 vs ≥ 46 jaar voorgekom het, kan moontlik verband gehou het met die verbeterde FAI by die ouer groep, asook daarmee dat hulle vanweë die bereiking van die kliniese horison (Rowland, 1990) meer bewus was van gesonde leefstyl.

Uit die resultate (Tabel 2) blyk dit dat die **KRI** by die laag-aktiewe groep mans swakker was as by die hoog-aktiewe groep. Die verskille was egter net by die ouer groep (≥ 46 jaar) prakties betekenisvol ($EG \geq 0.5$) (laag- vs hoog-aktief). By die vroue (Tabel 3) is „n soortgelyke tendens as by die mans waargeneem, behalwe in die geval van die ouer groep (≥ 46 jaar) waar die KRI hoër (swakker) was by die hoog-aktiewe groep. Die tendense moet egter versigtig hanteer word aangesien die klein groepies proefpersone in bepaalde groeperinge „n skewe beeld kan gee. Meer navorsing is nodig om die situasie, veral ten opsigte van werknemers in die korporatiewe sektor, duidelik op te klaar.

Die **GSI** by die mans het „n konsekwente tendens getoon, naamlik dat die GSI by die matig- en hoog-aktiewe groepe verbeter het. Die verskille was egter nie betekenisvol nie. Wat die

vroue betref, het daar nie „n konsekwente tendens by die verskillende aktiwiteitsgroepe voorgekom nie.

Die lewenstylgewoontes (**LSI**) van die totale groep mans en vroue het in die matig gesonde kategorie geval (Labuschagne *et al.*, 2007) en het verbeter namate hulle fisiek aktief en ouer word. Die LSI (3.5) van die jonger groep mans (≤ 35) wat laag-aktief was, was hoog prakties ($EG \geq 0.8$) sowel as statisties ($p \leq 0.05$) betekenisvol swakker as dié van die ooreenstemmende groep mans wat fisiek matig- (4.8) en hoog-aktief (5.3) was. Die LSI van die jonger groep

mans (≤ 35) wat fisiek hoog-aktief was, het ook hoog prakties ($EG \geq 0.8$) en statisties betekenisvolle ($p \leq 0.05$) verskille met die ooreenstemmende groep mans wat matig-aktief was, getoon. Dieselfde tendens word by die jong groep vroue aangetref (Tabel 3). Die LSI van die mans in die ouderdomsgroep 36–45 jaar wat fisiek matig-aktief was, vertoon ook hoog prakties ($EG \geq 0.8$) en statisties ($p \leq 0.05$) betekenisvol beter as diegene in die fisiek laag-aktiewe groep. Dieselfde tendens word by die vroue in die ouderdomsgroep gevind, met die verskil dat die hoog-aktiewe groep vroue, anders as by die mans, ook matig prakties ($EG \geq 0.5$) van die vroue in die fisiek laag-aktiewe kategorie verskil het. Die beste LSI by die mans het by die ouer groep (≥ 46) wat hoog-aktief (6.4) was voorgekom, en dit verskil hoog prakties ($EG \geq 0.8$) asook statisties ($p \leq 0.05$) betekenisvol van dié van die fisiek laag en matig aktiewe groepe mans in die ooreenstemmende ouderdomsgroep. Dieselfde tendens kom voor ten opsigte van die totale groep mans, naamlik dat die LSI verbeter het namate hulle verouder en dat die verbetering in lewenstyl in die onderskeie fisieke aktiwiteit-kategorieë (fisiek laag-, matig- en hoog-aktief) hoog prakties ($EG \geq 0.8$) en statisties betekenisvol ($p \leq 0.05$) was. Dieselfde tendens het by die totale groep vroue voorgekom, behalwe by die hoog-aktiewe groep ≥ 46 (5.2) waar daar nie prakties of statisties betekenisvolle verskille gevind was nie.

Met betrekking tot die totale groep mans en vroue onderskeidelik vertoon dié wat hoog-aktief was die gesondste lewenstyl ($\bar{x} = 5.4$ en 5.2 onderskeidelik) en die wat laag-aktief was die ongesondste lewenstyl ($\bar{x} = 3.8$ en 4.0 onderskeidelik). Hierdie tendens stem ooreen met Shephard (1986) se bevinding wat toon dat fisieke aktiwiteit “n snellermeganisme kan wees wat gesonde lewenstylgewoontes kan aanspoor.

Uit die resultate blyk dit dus dat fisieke aktiwiteit „n salutogene effek op die koronêre risiko-, gesondheidstatus- en lewenstylindeks van mans en vroue wat by „n finansiële instansie werk, kan hê. Die koronêre risiko-, gesondheidstatus- en lewenstylindekse van beide mans en vroue in die totale groep val oorwegend binne die matige risikokategorie (Labuschagne *et al.*, 2007). Musich *et al.* (2003) toon aan dat 2 tot 4% van werknemers jaarliks na die hoër risikokategorie kan verskuif indien hulle geen intervensie ontvang nie. Bepaalde intervensiestrategieë wat daarop gerig is om werkers fisiek meer aktief te kry, kan vir „n maatskappy waardevol wees aangesien fisieke aktiwiteit „n snellermeganisme kan word vir die beoefening van gesonde lewenstylgewoontes (Strydom, 2005) en sodoende die risiko vir koronêre hartsiekte (ACSM, 2006) en hipokiniese by die werkers kan verlaag. Sulke strategieë is belangrik vir die effektiewe bestuur van werknemergegesondheid aangesien dit die werknemers se werkstermyn en produktiwiteit positief kan beïnvloed (Musich, 2003; Burton *et al.*, 2004). Ouer werknemers beklee gewoonlik die meer senior posisies in die maatskappy en vorm „n elitekomponent van enige maatskappy se bestuur. Die koste om hierdie werknemers in terme van opleiding, kennis en kliënteverhoudinge te vervang, kan „n

maatskappy duur te staan kom. Die resultate van hierdie studie toon dat selfs net matige deelname aan fisieke aktiwiteit werknemers en veral die ouer groep (≥ 46 jaar), gesonder kan hou en hulle diens en produktiwiteit vir die maatskappy kan verleng.

Die propagering van „n verhoging van die fisieke-aktiwiteitsindeks van werknemers maak

tans „n belangrike komponent van werknemerwelstand-programme uit (Labuschagne, 2006). Redes hiervoor mag wees dat die prevalensie van fisieke onaktiwiteit by manlike sowel as vroulike werknemers van die hoogste gesondheidsrisikofaktore is (Labuschagne *et al.*, 2007), wat op hul beurt tot „n groot aantal gesondheidsprobleme aanleiding kan gee (Hall, 2008) en deur Booth *et al.* (2000:779) as die “silent epidemic” beskryf word. Seaward (1988) beweer dat fisieke aktiwiteit die ruggraat van welstand is en derhalwe „n belangrike komponent van gesondheidsbevorderende intervensiestrategieë uitmaak. Die uitdaging aan die anderkant is egter om werkers sover te kry om wel fisiek meer aktief te raak en verder ook daarmee vol te hou. Hierdie uitdagings sal in die toekoms daadwerklike aandag moet geniet ten einde effektiewe welstandsprogramme vir werknemers aan te bied.

BEPERKINGE VAN DIE STUDIE

Die studie het bepaalde beperkinge, en opvolgstudies behoort hierop bedag te wees.

- Die logistiek van die studie het meegebring dat werknemers by slegs een finansiële instelling ondersoek kon word. Dit het daartoe gelei dat klein getalle proefpersone in sommige groepe voorgekom het wat die betekenisvolheid kon beïnvloed. Die tendense waarna in die studie verwys word, moet dus as sodanig hanteer word.
- Die fisieke aktiwiteitsindeks is aan die hand van „n vraelys bepaal, wat „n mate van subjektiwiteit kan inhou. Objektiewe metings van die konstruk kan moontlik meer betroubare inligting verstrek.

GEVOLGTREKING

Uit die resultate van die studie is dit duidelik dat intensiewer deelname aan fisieke aktiwiteit die werknemers (mans en vroue) tot voordeel gestrek het ten opsigte van hulle KRI, LSI en GSI. Benewens die LSI was die ander verskille by die KRI en GSI by die verskillende aktiwiteitsgroepe vir die mans en vroue nie betekenisvol nie. By sommige groepe het tendense egter konsekwent voorgekom wat in ag geneem behoort te word. Die klein aantal respondente in sommige van die groepe het vergelyking bemoelilik en behoort met die nodige omsigtigheid geïnterpreteer te word.

Mededingendheid van maatskappye en werksdruk vereis lang werksure van werknemers wat kan meebring dat destruktiewe lewenstylgewoontes voorkom wat negatief op hul gesondheid kan inwerk (Burton *et al.*, 2004). Die resultate van hierdie studie dui daarop dat manlike en vroulike werknemers in die Suid-Afrikaanse finansiële sektor oorwegend matig gesond (matige risiko) is en bepaalde intervensieprogramme benodig wat daarop gerig is om werkers in die laerisiko-kategorie te hou en om die risiko van werkers in die matige en hoërisiko-kategorie te verlaag (Cowan *et al.*, 2004). Kaplan (1997) meld in die verband dat deelname aan fisieke aktiwiteit hipokinetiese siektes kan voorkom, soos sekere vorme van hartsiektes, hipertensie, degenerasie van bloedvate, oormassa, neurodistonie en houdingsafwykings wat die

gesondheidstatus van die mens benadeel.

Meer navorsing is egter nodig om die invloed van fisieke intervensie op werknemerwelstand volledig te kan verklaar. Veral in „n land met „n diverse kulturele en etniese samestelling is dit belangrik, aangesien dit bekend is dat etnisiteit geassosieer kan word met bepaalde unieke

gesondheidsrisiko's (Strydom, 2005). Innoverende metodes sal ook ondersoek moet word ten einde deelname aan „n program te optimaliseer asook volhoudbaarheid te verseker.

SUMMARY

The influence of leisure time of participation in physical activity on coronary risk, lifestyle and health status indices of employees at a financial institution

Technological advances and mechanisation have reduced physical activity levels of people in general. Lifestyle has become more and more physically inactive. Sedentary lifestyles can lead to the development of hypokinetic diseases, which inter alia include risk factors for the development of coronary heart disease. The consequences are a variety of health risk factors that can contribute to heart disease, stroke, myocardial infarction and mortality. If left unattended, these risk factors can lead to ill health, increased absenteeism and reduced productivity.

The purpose of this study was to evaluate the impact of leisure-time physical activity on health status (HSI), lifestyle (LSI) and coronary risk indices (CRI) among employees at a financial institution. The sample included 475 employees (159 males and 316 females) with a mean age of 35.8 ± 8.6 and 35.1 ± 8.5 years for the male and female group respectively, divided into three age groups of ≤ 35 , 36–45 and ≥ 46 years.

Results indicated that the employees could be placed in the moderate category in terms of physical activity index, health status, lifestyle habits and coronary heart disease risk. The LSI of the older males (≥ 46) was significantly better than that of the younger males. The LSI of males and females were also significantly better among the physically active group compared to the low active group. Regarding the LSI of the male and female employees, significant improvement emerged in the high active group vs low active group. As far as the CRI and HSI are concerned, some positive tendencies also indicated improved status in the high active group, however, the differences were not statistically or practically significant, except in the CRI age group ≥ 46 years (low vs high active). In the case of the females no consequent tendencies were noted.

The findings suggest the need for employers and employees to prevent hypokinetic disorders, which may result in reduced productivity, increased health care costs and increased morbidity and mortality. The literature also revealed that there is a need for companies to assess the health risk profile of their staff since employees can migrate between low, moderate and high risk categories annually and the low risk employee of today can be the high risk employee of tomorrow.

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RELATIONSHIP BETWEEN FACTORS OF NEUROMOTOR FITNESS AND CHILDREN'S INDIGENOUS GAMES: LINKAGE WITH FUNDAMENTAL MOTOR SKILLS

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ABSTRACT

This study investigated the impact of Fundamental Motor Skills (FMS) on children's Indigenous Games (IGs). Two hundred and three (203) children (Age: Mean=9.2; SD=1.322) from Camp and Tsiamo Primary Schools volunteered for the study. Following a pilot study, participants were assessed in koi, diphiri and dibeke indigenous games popular among Batswana children. Physical neuromotor tests measuring power, strength, speed, coordination and agility were also administered. Current findings were similar to previous studies done elsewhere. There was a weak relationship between fundamental motor skills in children's indigenous games and the neuromotor fitness items.

Key words: Indigenous games; Physical neuromotor performance; Fundamental movement skills.

BACKGROUND

Fundamental Motor Skills (FMS) are a prerequisite for the development of advanced movement skills necessary for children's sustained participation and achievement in daily physical activities and sport. The FMS required in performing locomotive skills (running, walking, hopping, galloping, skipping), manipulative skills (throwing, catching, kicking, striking, bouncing) and stability skills (balancing, standing, hanging, climbing) are entirely dependent on relevant opportunities for engaging in physical play by children. The FMS must be developed in the period between early childhood (2-3 years old) and later childhood (7-10 years old) and not later. The development of FMS may be effective if there is deliberate interaction of the organism with the task constraints and the environmental opportunities (Davids & Bennett, 2008). Furthermore, the science of motor learning and human performance is linked to the practical challenges of teaching and learning in the classroom (Renshaw *et al.*, 2010).

Research findings on FMS are clear that: (a) FMS does not develop with maturity but must be learned (Raudsepp & Pall, 2006); (b) failure to participate in meaningful physical activities may lead to lack of mastering the basic motor skills necessary for further participation and achievement in later childhood and adulthood (Akbari *et al.*, 2009); (c) there are gender differences in the performance of some of the FMS, mostly favouring boys at both preschool and elementary school levels (Goodway *et al.*, 2010); (d) acquisition of motor skill

proficiency in childhood is a predictor of adolescent proficiency in physical activities and enjoyment (Barnett *et al.*, 2009).

While aware of these motor behavioural changes, persistent participation in physical activities also contributes to the development of children's physical fitness. In a study of motor fitness among Dutch youth, Runhaar *et al.* (2010), identified physical fitness as dichotomously consisting of neuromotor fitness (with neuromuscular strength, speed of movement, coordination, and agility as its variables) and aerobic fitness (activities demanding muscular endurance over prolonged time). When children participate in rigorous physical activities on a regular basis, they develop neuromotor fitness that is important in learning and development of FMS (Runhaar *et al.*, 2010). Within a school Physical Education curriculum, the proficiency of children's movements is defined by: (a) direction (left/right, forward/back, across, around); (b) levels (high, medium, low, over, under); (c) movement dimensions (large, small); and (d) expressiveness (smooth, quick, ballistic, fluent, stiff) (Wharton-Boyd, 1983; Breslin *et al.*, 2008). It is considered that successful performance of these movement qualities is an indicator that development of children's FMS is taking place. However, the persistent challenge with Physical Education teachers in elementary schools is having a robust assessment battery that objectively and subjectively measures the physiological, psychological, sociological and ecological constraints and enablers. Similarly, research is challenged to develop multiple assessment tools that are highly valid, fair, educative and explicit (Hands, 2003; Netelenbos, 2005).

Although not well studied, the informal learning from which the child engages in solitary games or with others at either home or school environmental settings has recently been highly considered to be effective in developing FMS (Raudsepp & Pall, 2006; Akbari *et al.*, 2009). Rather than competing against each other, learning from free play complements the instructional Physical Education offered by the school program. During pre-elementary and elementary school levels, children participate in a variety of free games including indigenous games (IGs). Typically, children's traditional games are characterised by movement variability that challenges not only their neuromotor fitness but also cognitive and social skills (Lyoka, 2007).

Although studies are limited, significant correlations between FMS and outside school free play physical activities and games have been reported (McKenzie *et al.*, 2004; Raudsepp & Pall, 2006). The understanding is that children who frequently engage in moderate to vigorous physical activities are likely to acquire more FMS than their sedentary counterparts. Different from the school selected games and sport, IGs are generic in character; mostly associated with a variety of locomotive and manipulative movement skills that involve more gross motor movement than fine motor movement. As emphasised in other studies (Venetsanou & Kambas, 2004; Breslin *et al.*, 2008), the impact of physical activities from other cultures; the IGs in this case, are critical learning situations where children would be challenged to modify and adapt the new movements in their movement repertoire leading to increased movement experiences. Based on a longitudinal study (Runhaar *et al.*, 2010), the impact of neuromotor fitness on FMS development has further been emphasised. Although neuromotor fitness among Dutch children had decreased from 1980 to 2006, the study reported that neuromotor fitness is still important for children's learning, successful performance and enjoyment during physical activities.

Other studies on the impact of physical activities and games found that children develop not only their motor proficiency but also gain neuromotor fitness (Butcher & Eaton, 1989; Fisher *et al.*, 2005; Lacy & Hastad, 2007). However, studies examining the relationship between neuromotor fitness and children's IGs are lacking among elementary school children. The premise is that, if there is a correlation between physical activity and children's motor proficiency (Wrotniak *et al.*, 2006; Cliff *et al.*, 2009) then IGs should contribute toward children's neuromotor fitness necessary for learning and acquisition of the FMS. The question is, to what extent are movements in IGs related to the neuromotor fitness variables?

PURPOSE OF THE STUDY

The current study is motivated by the assumption that on a daily basis, children engage more in IGs (that are in the form of free play) than instructional-based activities. Most of the previously cited studies on FMS have focused more on pre-elementary school children than elementary level. It is important to know whether children from six years old are able to retain and effectively use their previously acquired FMS during physical activities and games. While acknowledging the contribution of the hidden curriculum in the development of children's FMS, the facilitators of children's learning and development still believe and think within the instructional box.

The purpose of this study was therefore to examine whether FMS in IGs may influence neuromotor fitness of elementary school children.

The objectives of this study were: (a) to identify neuromotor fitness variables that discriminate performance on gender basis; and (b) to establish whether a relationship exists between variables of neuromotor fitness and fundamental motor skills relevant in children's IGs.

METHOD

A baseline study was designed to assess the developing neuromotor fitness in terms of speed, muscular strength, coordination and power among elementary school children. Performance assessment of selected IGs was aimed at identifying the development of related FMS and if they were related to neuromotor fitness variables. Oral interviews were administered to establish preferences of participants in the IGs. A pilot study was carried out to improve the quality of the measurement instruments, as well as administrative procedures. The school authorities consented to the participation of all the pupils.

Participants

A total of 203 Batswana children (Age: Mean=9.11; SD=1.360) from Tsiamo and Camp Primary schools volunteered for the study, of which 93 were boys (Age: Mean=9.27; SD=1.322) and 110 girls (Age: Mean=8.96; SD=1.390). Structured selection of participants from classes 2, 3 and 4 was mainly based on class levels rather than age. Being rural, children in classes had mixed age levels within a range of ± 2 years. Children with disabilities or those who were ill were excluded.

Instrumentation

Tests of neuromotor fitness (broad jump for lower trunk strength/power, throw for distance, and coordination of upper body) were administered to the 203 children. *Dibeke*, *diphiri* and *koi* games were administered to assess their capability to play such games successfully within the given time and/or series. A verbal interview was given to assess participant's self-efficacy toward the indigenous games.

Administrative procedures

All tests were administered at the school premises. Participants were consulted before volunteering to participate. Terminal feedback was given instantly after completion of each activity (terminal). During piloting, *reliability* in testing and scoring was established (90%). Three field research assistants had prior training in administering and recording the assessment instruments. Experts in the field of motor development and performance established both face validity and content validity of the measurement instruments. Administration of the neuromotor fitness assessment was completed within 50 minutes. Three trials were allowed for each test and the best score was recorded.

For the IGs activities the following procedures were observed:

Diphiri instructions (chase and catch game): All students who assumed to be baby hyenas stood in the safe area of the field (size of a soccer field). Two students pretending to be hungry lions stood in the middle of the field. During play they pretend to be mother hyenas for the children and they call their children from the other side of the field to join them. As children respond to the call and run across the field, they encounter the hungry lions that go after them. They have to run fast to the other side of the field for their safety. During this situation, the lions catch some. Those caught become small lions and they also join the hunt for the baby hyenas. The activity continues until all the children have been caught. The equipment required was five stop watches, score cards and whistles. Five timekeepers with stop watches stood on the side lines to time those who got caught in the field. The elapsed time was recorded from the moment the child started to run until he/she got caught. The activity was repeated three times to allow for the best performance to be recorded. The longer a child stays in the game before being caught is a strong indicator of the performance level of fundamental movement skills and specific motor skills of the game.

Dibeke instructions (targeting and throwing to hit game): Following the command, students start running from the safe zone across the unsafe zone to the other safe zone. The stopwatch is started once they step across the line to enter the unsafe zone. During the activity, two students standing on either side of the lanes with one tennis ball each, aim at hitting any one of the runners. Runners have the responsibility to dodge the ball as they cross the unsafe area to the other side of the safe zone. The throwers (hitters) are helped by others to retrieve the balls that go beyond the court. The area was equivalent to a volleyball court to accommodate 10-15 participants. The equipment required was two tennis balls (soft), three stop watches and score cards. The timekeepers stop the watch when someone gets hit and the student goes out of play. The elapsed time between stepping in the unsafe zone following the command to start and when the ball hits one it recorded on the score card. A winner can also be the one who crosses the unsafe zones seven (7) times without being hit by the ball. In this case, total

time taken to complete the repetitions was recorded. The longer it took to get hit or complete seven crosses along the unsafe area was an indication of the performance level of the fundamental movement skills and motor skills of the game.

Koi instructions (rope skipping game): The student stand with legs apart and parallel with hands apart from the body. The game begins with a song that ends with a command to start the skipping exercise. The student starts to jump the rope that is swung by two students standing opposite each other at rope length. The jumping activity continues until the student has reached total exhaustion (cannot jump any more). The equipment required includes a stopwatch, skipping rope and score card. The elapsed time is measured from the moment the child starts to skip the rope until when jumping stops due to exhaustion. Three trials were given to each participant and the best time was recorded. The participant having the longest time on the game activity was considered to have competent physical motor performance and skipping technique, as well as fundamental movement skills.

Oral interviews were conducted with each participant immediately after completing all the activity tests to establish their preferences. A pen was used to enter their responses on the entry score sheet.

Data analysis

The t-test was applied for gender performance differences; the ANOVA for interclass group differences; and the Pearson Moment of Correlation was applied to establish performance differences, as well as correlations between indigenous games and components of neuromotor fitness. Children's preferences were analysed as percentages of frequency responses.

RESULTS AND DISCUSSION

This baseline study was challenged by a lack of standard criteria for assessing the children's indigenous games performances. The validity of the current findings was strengthened by intra-group differences and similarities, as well as support from related studies done elsewhere.

Gender differences of performance

The t-test results discriminated performance differences between girls and boys in all the activities (Table 1).

There were no significant performance differences between girls and boys in the selected indigenous games performance, suggesting that children who actively engage in physical play would not differ significantly in their developing FMS. However, the noted performance differences in the components of neuromotor fitness have also been reported in a study on the *throw for distance* and the *broad jump* (Delas *et al.*, 2008). Boys were better in throwing and jumping activities mainly because they participated in other sport such as soccer and tennis after classes. Such games are associated with explosive strength, speed and coordination. On the other hand, most of the girls preferred to play less vigorous games but were highly skilled in activities such as hand clapping games, aiming and dodging and hopping.

TABLE 1: PERFORMANCE DIFFERENCES BY GENDER

Activity	Mean Boys (n=93)	Mean Girls (n=110)	F-ratio	Sign. p<0.05	Difference
Diphiri	0.632	1.327	5.815	0.837	None
Dibeke	0.177	0.184	0.225	0.200	None
Koi	0.125	0.149	1.300	0.546	None
Broad jump	1.545	1.382	5.527	0.000	Yes
30m.-sprint	5.096	5.927	0.949	0.002	Yes
Throw for distance	28.253	20.373	1.689	0.000	Yes

Contribution of movement experiences gained from IGs toward neuromotor fitness performance

The motive for this question was to identify kinds of movement patterns common in IGs and variables of neuromotor fitness that are influenced by the FMS.

Except for a weak correlation observed in *koi* and the *30m-sprint* shuttle run, there were no significant correlations between FMS used in indigenous games and those from the physical motor performances (Table 2). These findings are similar to a study of FMS and habitual physical activities of children reported by Fisher *et al.* (2005). These differences could be attributed to: (a) children at this age level are generalists who play any game because of interest, inspiration or curiosity; and (b) there is also a possibility that FMS used in neuromotor fitness performances did not transfer during performances of IGs. For instance, a lack of correlation between *dibeke* vs. *broad jump*, *koi* vs. *throw for distance*, *diphiri* vs. *throw for distance* and so on. In principle, gross motor related movements are involved in IGs while there is specificity of FMS during performances of the neuromotor fitness variables, like jumping, running and throwing. This emphasises the relevance of IGs in developmental FMS in children frequently engaged in physical activities and games (Rose & Christina, 2006).

TABLE 2: PERFORMANCE CORRELATIONS BETWEEN IGs AND NEUROMOTOR FITNESS VARIABLES

Variables	Dibeke	Diphiri	Koi	Broad jump	30m.-sprint	Throw for distance
Dibeke	-	0.260**	0.311**	-0.071	0.085	-0.131
Diphiri	0.260**	-	0.353**	0.051	0.058	-0.023
Koi	0.311**	0.353**	-	0.051	0.189*	-0.074

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Performance differences between classes

ANOVA was used to identify class performance differences in the physical activities on a class basis. Significant variations in *broad jump* ($F_{13,360}$), *30m-sprint* ($F_{5,794}$) and *throw for*

distance ($F_{16,347}$) at $p<0.05$ were noted (Table 3). These differences could be attributed to

maturational effects among children, individual motor fitness differences (*broad jump* and *30m-sprint*), differences in motivational levels, as well as body management skills. In throwing, for example, boys outperformed girls. Transfer of learning can happen when there is similarity of movement patterns in focused activities (Rose & Christina, 2006). In due consideration, the movement patterns common in IGs are generic in form, hence significantly important for fundamentals of movement skills (Gallahue & Donnelly, 2003) and associated factors of physical motor performance.

TABLE 3: PERFORMANCE DIFFERENCES BETWEEN GROUPS

Variable	Class Mean	Class Mean	F-ratio (ANOVA)	Significance (p<.05)	Difference
	(n=55)	(n=50)			
Dibeke	25.284	12.671	1.177	0.312	None
Diphiri	0.102	0.051	1.845	0.162	None
Koi	0.178	0.089	0.924	0.401	None
Broad jump	0.086	0.043	13.360	0.000	Yes
30m.-sprint	3.468	1.734	5.794	0.004	Yes
Throw for distance	308.332	154.166	16.347	0.000	Yes

Gender differences in activity preference

The answers to this question provided some clue about children’s choice of games and related value. However, the validity of these views was challenged by the fact that children’s interests vary with time, experiences, education, change of places and peer influences. However, probing questions were used to qualify their responses and is supported by similar findings from other scholars. Current findings are similar with previous studies on motor proficiency related to performances of FMS and physical activity levels in children (Wrotniak *et al.*, 2006; Delas *et al.*, 2008). Children’s levels of interest were indirectly expressed by the high frequency of responses in IGs participation, as well as the use of weekend free time for playing games for both girls and boys.

Play *diphiri* at home

The popularity of *diphiri* among boys and girls is shown in Figure 1. It seems that *diphiri* was enjoyed due to a high popularity among boys and girls in all classes. Given the large number of the girls in schools, 98% liked to play *diphiri* similarly quite often, while 79% of the boys liked the game generally. Boys would play occasionally, as their interest seemed to have shifted to other sport like soccer and tennis. However, girls play *diphiri* quite often because it is much more inclusive in nature.

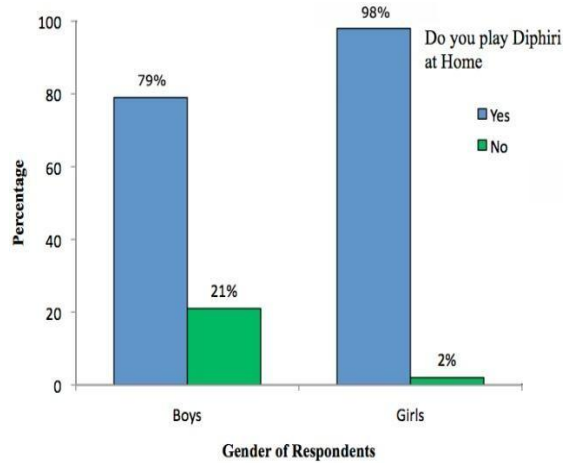


FIGURE 1: PARTICIPATION IN DIPHIRI

Play *dibeke* at home

Dibeke was one of the popular games among children but boys had their interest and time devoted to other games such as soccer and basketball. The children’s responses on participating in *dibeke* at home are shown in Figure 2. The responses from those interviewed indicated that boy’s (65%) liked the game as they grew up playing it, while girls (75%) still continued to play *dibeke* either at home and school.

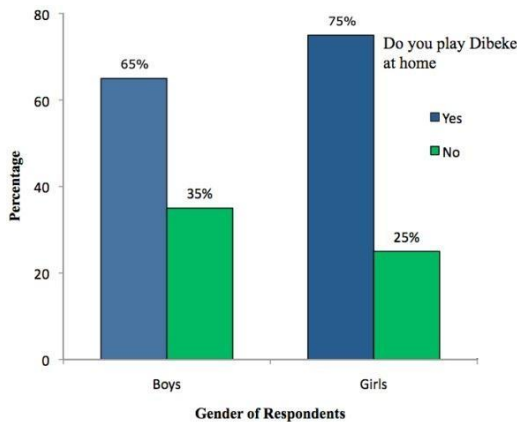


FIGURE 2: PARTICIPATION IN DIBEKE

Play *koi* at home

Although *koi* was a popular game across genders, there were differences in views about of participation frequency (Figure 3).

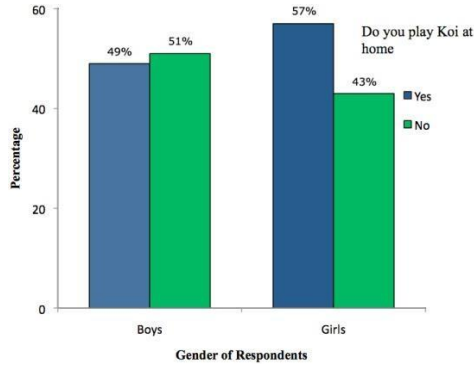
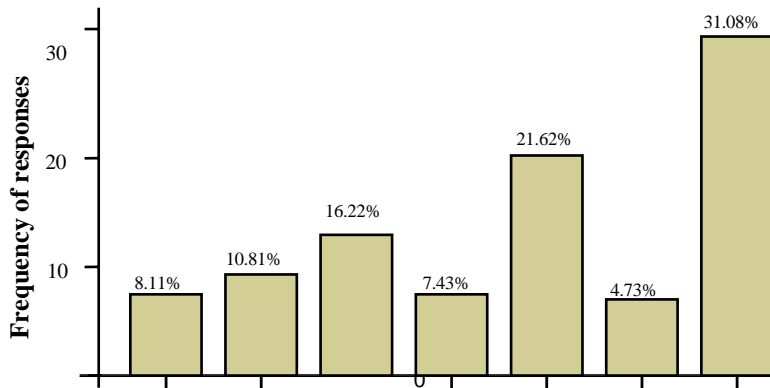


FIGURE 3: PARTICIPATION IN KOI

Frequency of participation in outdoor activities at home

The answers obtained from this probing question provided a general framework about children’s preferences of IGs. Children had free time to play on Fridays (they leave early from school) and Sundays on weekends (Figure 4).



Mon.

Tues.

Wed.

Thurs.

Fri.

Sat.

Sun.

FIGURE 4: FREQUENCY OF PARTICIPATION IN PHYSICAL GAMES AT HOME

Children like to play, as well as engage in other physical activities on a daily basis. This was indicated by the number of days they engaged in play per week when they were free. In general terms, girls preferred IGs with less physical contact but that require a high level of skill, while boys engaged in competitive contact sport like soccer and basketball (Lever, 1978).

SUMMARY

Children's views on IGs participation indicated that they were interested in and still wanted to participate actively. This points to their high self-efficacy toward sport and games both at home and schools settings. On the other hand, lack of significant correlations between IGs and components of physical motor performances, suggest that the movement skills used in performing physical motor skills were different from those used in IGs performances.

However, longitudinal studies would best describe the coupling phases of the developmental movement skills among children with age and sex differences being accounted for in children six to 10 years old. Due to tender ages and levels of motor development, children are generalists in games participation, which can make experimental control a significant challenge.

The moving to learn concept (Barret, 1973; Derri & Pacht, 2007) seems to favour the way children learn different movement techniques and skills. Physical Education and sport programs provide ideal opportunities for incorporating children's IGs. Generalisations from the findings of the current study are limited, however, accumulated knowledge from previous studies, methodology, sample size and criterion revealed the following:

- Overall, girls seem to play IGs more than boys on a daily basis. The main reason being a social environmental one where boys prefer to play soccer either at home or school.
- Holistically, children's IGs have potential in developmental fundamental movement skills because they may be transferable to other sport and games.
- The broad participation demonstrated by children in IGs is a potential indicator of their interest, hence there is potential for learning and future development.
- Lack of correlation between IGs and components of neuromotor fitness could be a methodological challenge because current findings are in agreement with Netelenbos (2005) that the low concurrent validity of children's FMS could be due to multiple influences of children's developmental processes or experimental errors. More research is needed in this area.

CONCLUSION

There was no substantiated correlation between neuromotor fitness and the children's participation in IGs. More studies are needed in this sensitive area of children's development.

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COPING STRATEGIES OF SOCCER PLAYERS

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ABSTRACT

This study focused on coping strategies used by soccer (football) players by exploring the role of the environment, ethnicity and culture in players' response to stressful situations. An interpretive-qualitative research methodology was applied with a sample of 33 professional soccer players. The subjects were representative in terms of race, age, experience and playing positions. Semi-structured interviews and biographical questionnaires were used to gather information. The data were analysed by means of an interpretive or thematic content analysis procedure. Results showed that there were similarities and differences in the way players coped with a variety of stressors.

Key words: Stress; Coping strategies; Soccer; Football; Ethnicity.

INTRODUCTION

Stress and coping are complex phenomena that are not always fully understood and impinge on an individual's performance and response to their environment. According to Park (2000), performance in competitive sport depends on the physical and technical skills of sportspeople, as well as their psychological aptitude. He articulated that players' ability and emotions interact to influence performance. Research revealed that high levels of stress have a negative impact on sportspeople's performance during competitive events (Marmot & Madge, 1995; Kaplan, 1996). Stress is perceived as the cause of many psychological problems and sportspeople in both the elite and recreational sport levels are equally affected by it and equally susceptible to its effects (Park, 2000). Anshel *et al.* (2001) reported that stress is a contributing factor of psychological disorders such as depression, weight problems, sexual problems, sport burnout, alcohol abuse and injuries. Literature revealed that not all individuals are comfortable with the psychological effects of stress on their lives, in particular when they are expected to perform at their peak (Meichenbaum, 1983; Marmot & Madge, 1995; Kaplan, 1996).

Football players are not exempted from this unfortunate situation, as they also suffer from the illnesses that are related to stress such as restlessness, irritability, anxiety, loss of appetite, disturbed sleep, low resistance to physical illness, poor performance, fatigue, lack of concentration and memory problems (Meichenbaum, 1983; Kaplan, 1996; Park, 2000). Holt and Hogg (2002) revealed that sport has the potential of taxing players and exposing players to extreme stressful conditions. They argued that when players engage in sport, they expose

themselves to a high pressure environment that requires expertise in dealing with their mental challenges and the deployment of their arsenal of cognitive and behavioural coping strategies.

In fact, literature disclosed that although considerable research has been conducted on stress, little is still known about the coping strategies of ethnically diverse football players (Scheier *et al.*, 1986; Gould *et al.*, 1993; Giacobbi & Weinberg, 2000). Studies that were conducted both in social and sport psychology gave little attention to the issue of ethnicity and coping in sport. There is a dearth of research on team sport, yet little is known about how the team sport environment influences players' perceptions of stress and coping (Gould *et al.*, 1993; Giacobbi & Weinberg, 2000; Park, 2000; Anshel *et al.*, 2001; Holt & Hogg, 2002). A large amount of work was done in sporting codes other than football. These studies were conducted in basketball, track and field, baseball, wrestling, swimming, boxing, tennis, golf, weight lifting, skiing, shooting and gymnastics (Gould *et al.*, 1993; Giacobbi & Weinberg, 2000). Their focus was on variables related to individual sport.

Research also revealed that there was a scarcity of cultural and cross-cultural studies related to coping (Duda & Allison, 1990; Park, 2000). Even though football is a popular sport in Africa, very little research has been done on soccer populations from this continent. According to sport researchers and scholars, there is a need for a cultural specific approach to the study of stress and coping in sport in particular, football (Park, 2000; Anshel *et al.*, 2001; Holt & Hogg, 2002). It is known that football teams are characterised and reflective of cross-cultural branding, open interaction between players of diverse backgrounds, the immigration and migration of players and a need for coexistence amongst members of a particular team. The plurality of teams brings about a unique experience, which poses challenges to many owners, managers and coaches of football clubs. It was the research team's resolve that the coping functions of diverse football players could not be fully understood by simplistic application of a research design and interventions that are based on a universal understanding without a consideration of the issues of a player's ethnicity and group's culture in coping. Sera Dei *et al.* (2000) and Wilson (2003) propose that knowledge systems should be inclusive of all and incorporate the different ways in which indigenous people think and interpret the world and its realities.

The intention with the present study was to address the gap in research by looking at football players' coping strategies from the context of ethnicity and diversity, and constructing the meaning of reality as defined by these ethnically diverse football players. The study focused on football as a team sport in an attempt to investigate how ethnicity, indigenous knowledge, language and cultural variables influence a players' selection and use of coping strategies in football and to compare the way ethnically diverse football players respond to their stressful environment. It explored the role that the environment, ethnicity and cultural differences play in players' response when joining multi-ethnic teams.

METHODOLOGY

Research design

The research described here forms part of a doctoral study conducted in a local community of the Western Cape. An interpretive-qualitative research design was employed and principles of Indigenous Paradigm methodology were also incorporated to eliminate dilemmas,

contradictions and distortions that are generated when researchers are involved in work with ethnically diverse groups (Menzies, 2001). A purposive sampling strategy was employed

(Lewis & Ritchie, 2003) and a sample of 33 football players was drawn from a Premier Soccer League (PSL) club in the Western Cape. Participants were selected with the purpose to reflect and represent features of the investigated group. Race, age, educational level, playing position, years of experience in the team, and marital status were used as the population characteristics for the basis of this selection.

Subjects

Informed consent was secured from the local professional football club. Players were conveniently selected from the different teams. Three groups of 11 football players were selected from a Black, Coloured and White group of players. The three groups included three goalkeepers, 12 defenders, nine midfielders and nine strikers. The ages of the players ranged between 15 and 32 years (Mean=18.33 years; SD=3.0).

Data collection

Data were obtained using semi-structured interviews and biographical questionnaires. Information obtained from the questionnaire included: (1) socio-demographic characteristics of the participants (age, ethnic group, marital status, player's educational level and occupation); and (2) self-reported soccer related aspects, which included health information, playing experience, position and level of participation.

An interview question guide was developed and then piloted by involving 15 soccer players prior to its administration to the study sample. These players were selected from a senior team of a local Football Association according to their playing positions (e.g. three goal keepers, four defenders, four midfielders and four strikers). The piloting was carried out to assess applicability and evaluate the completion time of the question guide and to allow the researcher "to measure whether the data that was collected was suitable for the purpose of the study and to dry run data analysis" (Gratton & Jones, 2004:127). Questions were divided into „primary“ and „secondary“ research questions. The primary questions were assembled first and then sub-divided into secondary questions. Each primary question had a set of corresponding secondary questions. The "scripts" were not rigid and space was created for further interaction and development of new questions. The primary researcher conducted the interviews in a secluded environment and sessions were audio taped with the permission of the participants.

The cross-referencing of questions was done to ensure that primary and secondary questions corresponded with the research question. The secondary questions were crosschecked against primary questions. The trustworthiness and authenticity of the research tools were used because of epistemological reasons and inappropriateness of the concept of reliability and validity in qualitative research. Trustworthiness refers to "the process of verifying and cross-checking accuracy and truth in a social inquiry by allowing other researchers access to information and matters related to the research processes" (Lewis & Ritchie, 2003:274).

Data analysis

Data obtained from the interviews were analysed using interpretive or thematic content analysis (Donnelly, 2002; Gratton & Jones, 2004). The data was analysed using the

indigenous analysis ethnic model to accommodate and reflect on the realities of the experience and values of ethnic groups. The first step began with the transcription and translation of the interviews. The primary researcher transcribed and checked information on the transcripts for accuracy and consistency including utterances of both interviewer and respondents. This was followed by a theme-inducing phase. In this phase, the transcripts were studied to ascertain the organising principles that naturally underlined the material. This resulted in the organisation of raw data into categories or themes during which the language of the interviewees rather than abstract theoretical language was used to label the categories. Poor performance, home circumstances, strong opponents, high expectations from others, pressure of being a professional football player, school work and workload, language and culture, injuries, inclusion in the starting line-up, allowing early goals, unruly supporters, finances, being away from home, referees' decisions, transport problems, player jealousy, intolerant players, fear of making mistakes, thinking about results, big game effect, losing games, negative evaluation of the club by others, poor playing facilities, losing friends through early promotion, coach and media were identified as categories that caused stress to the three groups of football players.

These categories were further divided between pre-match, match and post-match situations. The *pre-match* category included conditions that took place before a football game and this, for example, included home circumstances, thinking about the strength of the opponents, high expectations from others, unruly supporters, inclusion in the starting line-up, allowing early goals, injuries, fear of making mistakes, intolerant players, thinking about results, big game effect, being away from home, coach and media. The *match* category included conditions that took place during the football game and included, for example, issues related to performance, allowing early goals, fear of making mistakes, poor performance, strong opponents, injuries, referees' decisions, intolerant players, unruly behaviour of spectators, thinking about results, media, coach's response to individual performance, and poor playing conditions. The *post-match* category included conditions that took place after a football game and included reflection on poor performance, losing games, evaluation of club by others, thinking about results, sustained injuries, dealing with media and inclusion in the starting line-up.

Other categories are related to more than one timeframe. For example, coach, media, injuries and thinking about the results is experienced before, during and/or after the game. Other categories such as strong opponents, high expectations from others, poor performance, allowing early goals, unruly supporters, fear of making mistakes, big game effect are experienced before and during the game. Inclusion in the starting line-up and home circumstances are related to periods before and after the game.

The next step in the data analysis process was a coding phase or breaking down of a body of data into labelled meaningful pieces with a view to cluster the coded material together under coded headings (Lincoln & Guba, 1985). Data was cut, labelled and pasted into meaningful pieces of information. Similar thematic topics were grouped together and developed into broad explanatory categories. Themes were then categorised in order of importance, for example low order themes and high order themes. Four high order themes were identified as coping strategies for football players and these were: the emotion focused coping; problem

focused coping; avoidance coping; and passive coping. *Emotion* focused coping dealt with emotional arousal and control. *Problem* focused coping involved the manipulation of tasks

and behaviour control. *Passive* coping included passive reactive strategies to stressful situations and *avoidance* coping involved the use of strategies that are geared towards avoiding dealing with a stressful situation.

The low order themes that were identified for emotion focused coping were, for example, emotional expression, losing focus, seeking social support and self-blame. The problem solving low order themes included active coping, planning, adopting a positive approach, self-support, relaxation, mental engagement, focusing, concentration and goal setting. Passive coping included acceptance, turning to religion, no planning, mental disengagement and behavioural disengagement. Avoidance coping included avoidance, suppression of competitive activities, ignoring, suppression and substance abuse.

The final step was the interpretation and checking phase. A triangulation method was employed to validate the interpretation of data (Lewis & Ritchie, 2003). Findings were crosschecked using multiple analyses and an audit trail as suggested by Lincoln and Guba (1985). Two research analysts who are experienced in qualitative research were asked to validate and trace the route of interpretation and reflect on how sections of the data came together. These researchers were invited to assess and help improve the precision of the research findings.

RESULTS AND DISCUSSION

The study revealed that football players from diverse ethnic backgrounds were experiencing stress as a result of match, pre- and post-match situations and that there were differences and similarities in the way in which players conducted themselves under stressful conditions. This was attributed to the differences in their ethnicity and cultural backgrounds. This observation was supported by the findings of Holt and Hogg (2002) in their study of field communication and competence amongst football players. They discovered that many of the coping strategies the soccer players used were related to social interaction and the environment to which these players were exposed. In fact, Aldwin (1994) stated that the source of stress and coping strategies are contextual and differ according to circumstances. It appeared that coping strategies were related to the specific conditions in which they manifested. The players differed according to context and varied from one ethnic group to another. The study suggested that in each cultural group there were certain ways in which players tend to behave. It appeared that as players developed, they become exposed to situations and developed behavioural patterns that were normative and distinctive of each group.

Players' perceptions of their experience of stress also suggested intergroup differences. The study showed that non-White players were experiencing more stress than White players. It would appear that the distribution of resources and other problems associated with unemployment and home circumstances were interplaying in creating stress amongst the non-White players. The findings revealed that there was a relationship between stress and the socio-economic environment to which the players were exposed.

Discrepancies were recorded in players' experience of control. Football players from

advantaged backgrounds were expected to display better coping strategies than players from a historically disadvantaged background. Instead, the findings revealed that the majority of

Black and White players were in control during stressful times. The fact that these players were regular starters and occupied leadership positions (e.g., captains of the teams) might have worked as a confidence booster for them. It appeared that exposure to these experiences and roles equipped non-White players by enhancing their coping strategies and making them believe in their abilities and adaptive functioning.

Although Black players reported being in control, the perception of a lack of control was recorded only amongst non-White players. Non-white players' self-evaluation of their coping experience suggested that they were not positive and confident about their abilities. The study revealed that how these players evaluated and experienced themselves affected the way they evaluated their ability and perceived themselves. It appeared that ethnic factors and other societal influences were contributing towards these differences. The environments, from which many non-white players came, exposed them to diverse conditions that had a negative impact on the development of their self-concepts which is a key factor in coping. The history of not being able to carry out their responsibilities affected how these non-white players evaluated themselves in stressful situations. The experience was generalised to other contexts and influenced players' perceptions of those situations. Madden *et al.* (1990) in their evaluation of the perceived stress on coping with competitive basketball players found that players who reported low levels of perceived competitive stress reported a lesser use of coping strategies than players who reported high levels of perceived stress. There appears to be a strong correlation between an individual's self-evaluation and his coping ability.

The findings of the study also indicated that problem focused coping and emotion focused coping were the main strategies used by all three ethnic groups in coping with their everyday stressful life events. The ethnically diverse football players responded in almost the same way towards the challenges presented to them by football. There were no clear differences amongst the ethnic groups in how they responded to stress under these circumstances.

The study revealed that problem focused coping strategies were mainly used during the pre-match and match stages and that emotion focused coping strategies were mostly used during the post-match stage. This was brought about by the fact that on many occasions (especially during match stages), football players were required to engage in tasks that demanded immediate application of decisions and hence the tendency towards a problem solving approach. Players tend to react this way because team players rely more on the group than individual players and with these players there is a tendency to focus on solutions and support of others (Lazarus & Folkman, 1984; Endler & Parker, 1990; Anshel *et al.*, 2001). Crocker (1992) made similar observations in his study of competitive sportspeople in various team sports.

Generally, players from the three ethnic groups used problem-focused coping for stressors such as poor performance, strong opponents, workload, inclusion in a starting line-up and allowing early goals. For stressors caused by the coach, financial situations, home circumstances and transport problems, players across the three ethnic groups used social support and emotion focused coping. For situations beyond their control, for example, referee decisions and unruly supporters, players mainly used avoidance coping and relaxation. For

injuries, playing conditions and negative perceptions about the club, most players used problem focused and passive coping strategies.

All three groups recorded passive and avoidance coping as the lesser used strategies in dealing with stress. Evidence showed that these coping strategies were mainly used in situations where players had no control e.g. playing conditions, dubious referee decisions (as mentioned previously) and in dealing with angry coaches.

The following results were elicited to indicate the processes involved when choosing coping strategies. There were four processes used by the diverse football players in selecting their coping strategies and these processes were: automatic processes; thought out processes; influence of experience; and a combination of these processes. A large number of players in all three groups preferred to think thoroughly before selecting their coping strategies and very few players used automatic processing. Generally, the findings suggested that players across racial lines think about the choice of their coping strategies and that they used little of their former experience in selecting strategies (intrinsic versus extrinsic factors). Compared to the other two groups, the White group of players were more comfortable in using a combination of processes. The non-white (Black and Coloured) players preferred a particular process to the others and not a combination thereof.

Ethnically diverse football players experienced regular constraints when coping with football stress and these constraints were both similar and varied depending on their relevance and context. Exhaustion, language barriers and cultural differences were recorded as factors that were restrictive to coping across the three ethnic groups of players. Absence of family support structures, home circumstances, poverty and substance abuse were factors that hindered coping amongst the non-white players, whereas the White group of players identified personalities, communication and high expectations as factors that affected their coping.

CONCLUSION

The study has shown that football players from diverse ethnic backgrounds experienced stress as a result of pre-match, match and post-match situations and that players responded differently to those experiences. Non-white players were recorded to experience more stress than White players. All three groups of players used multiple coping strategies, with problem focused and emotion focused strategies being the main coping strategies employed by the majority of the players. The application of these strategies differed according to game stages, for instance, pre-match, match and post-match phases. Players thought about their responses and processed information when identifying and selecting coping strategies. They were motivated by different intrinsic and extrinsic factors to respond in a particular way. There were factors that acted as constraints to coping and some of these factors were reflected across ethnic groups, whilst others were group specific.

It can be concluded from the findings that stress is part of football. It is something that many football players experience, whilst many football players from diverse backgrounds do not have the skills to deal with the pressure presented to them by their sporting environment. The Premier Soccer League (PSL) should thus develop a health care support program in which stress management could be used as a tool to help football players to acquire skills that will

enable them to handle challenging situations and to offer practical suggestions as to how to take better care of their health. A life skills program may also be incorporated in this

intervention program. Such a program could include a personal skills course, social skills training, study skills, time management, communication skills, problem solving skills, crisis intervention, diversity training, team building and coaching. To address the problem of limited skills in dealing with mental challenges and poor performance, a mental skills training program is also suggested. Players could be exposed to goal-setting, concentration or focusing skills, following routines, self-confidence, progressive relaxation and emotional control techniques. This training intervention could be adopted and incorporated into the daily training schedule of football players.

The majority of players cited being away from home, high workloads, losing friends through promotion, language and cultural barriers as conditions that contributed to stressful experiences. A parent–player support program could assist in equipping players and to support them during their sporting careers. The program may include an induction program for new players, a support program for distant players and the implementation of football player development plans. An exclusive program could be developed for „care taker“ parents. This will help introduce and familiarise „care taker“ parents to the difficulties the „away-from-home“ players encounter when they join clubs that are far from home. These parents must be empowered with skills to help identify stressors and support players to cope with their sport and life challenges.

Individual and group therapy sessions would be important for personal counselling, motivational interviewing, enhancing group cohesion, helping players to know one another and becoming aware of how each member experiences the group, and to help establish a common goal or vision for the team.

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THE HURT BUSINESS: PSYCHOLOGICAL ASPECTS OF BOXING

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ABSTRACT

Ten boxers were interviewed individually to explore how they perceived the nature of aggression in the ring and the mental skills they employed in their sport. The interview data were subjected to thematic analysis, which elicited five dominant themes: aggression and how to deal with it; control of the arousal, especially anger that comes with the territory of the sport; and the positive aspects of discipline over mind and body that is required of boxers. A final observation relates to a relative absence in these interviews. Boxers did not speak explicitly about masculinity as a factor in the sport, unless prompted.

Key words: Boxing; Aggression; Control; Discipline; Masculinity.

INTRODUCTION

Over the years psychologists have moved confidently into the sport arena, offering expert advice on a wide range of psychological aspects in almost all forms of sporting activity. One sport seems to be the exception. Psychologists have been less enthusiastic to apply their knowledge in boxing, or combat sport in general. The reasons for this are not difficult to find, and revolve around its violent nature, and the potential to cause harm or injury. The British Medical Association for example, has asked a number of times for boxing to be made illegal, and the sport itself has recognised these concerns by introducing changes in rules and equipment over the years (Loosemore *et al.*, 2007).

Despite this reluctance, a number of sport psychologists are involved in boxing, both in the sense of research, as well as providing practical interventions to enhance performance. In the last 15 years or so a limited body of knowledge on psychological aspects involved in boxing has been building up, and the intention is to contribute to that literature.

As mentioned, it is the violence and aggression so characteristic of boxing that gives pause for thought. Aggression in sport is somewhat different from how it is perceived in general life, as it is sanctioned and provoked, in the sense that sportspeople willingly enter into agreement to compete. Aggression is acknowledged as an acceptable and even integral part of sporting behaviour (Maxwell & Moores, 2007). Parry (1998) noted how aggression in sport operates within the boundaries of the sporting institution and the freely chosen contract to contest and participate. This context legitimises and justifies sportspeople's aggression within the boundaries of the particular sport (Kerr, 2008).

Kerr (2008) contend that aggressive sporting behaviour could not automatically be presumed as either aggressive or non-aggressive but that it is the sportspeople's intention that indicates the acceptability of an aggressive action. One psychological aspect that ties directly into the ethical questions raised by boxing, is this "intention to hurt" aspect. Lane (2008) argued that indeed if the purpose of the sport is to cause injury, then it would be unethical for psychologists to be involved in it. He does not accept the notion that boxers seek to intentionally injure their opponent, and his article provides statements from boxers that supports his contention. Autobiographical accounts of boxers furthermore suggest that boxers regard their sport as much psychological and tactical, as it is physical. Mental toughness indeed is widely accepted as a major factor in the ability to compete in the sport (Uphill & Dray, 2009). Lane (2008) cites further research on what boxers think and feel during competition that reveals few indicators of aggression, and that interview data with boxers indicate that aspects of skill, emotional control and physical fitness are considered as key factors in determining performance (Devonport, 2006).

Thus, it was decided to explore further how boxers think and feel about their sport; what Wacquant (1995:491) called "the pugilistic point of view". Of particular interest in this study were the boxers' perspectives on the nature of aggression in the ring, and the mental skills that boxers employ in their sport, whether consciously or unconsciously.

To make sense of another individual's experiences and perceptions, one has to employ methods that would elicit them with sufficient depth. Individual, semi-structured interviews were utilised in the present study, in which boxers gave personal accounts of the psychological phenomena relevant to this study. The topics of interest were based on subjective interpretations on the part of the boxers, and interviews were regarded as imminently suitable to this task. Indeed, Munroe-Chandler (2005:68) argued that "subjective knowledge is therefore at the heart of sport related inquiry", and is essential when gaining knowledge about how sportspeople think and operate (Crust & Nesti, 2006).

METHODS

Participants

Five amateur and five professional male boxers were interviewed. The inclusion criteria were fairly broad, but the boxer must have fought in a refereed fight within the preceding year. All of them were older than 18, and none of them were white.

Interviews

A list of possible questions was generated from the literature, and forms the questions to be addressed in the present study. For example: How did you get into boxing? Your first fight: Can you remember it? Can you describe how you felt? Have you ever felt out of control? What do you think boxing has taught you about fighting? The interviews, however, were more akin to a purposeful conversation than a question-and-answer session, and the questions

served to maintain focus and to ensure that the central research questions were addressed (Patton, 2002). Prompts were used to explore the responses offered in greater depth.

Interviews were audiotaped and transcribed. Written notes were not taken during the interviews but possible themes and interesting points that stood out during the interviews were noted afterwards. The steps of thematic analysis of Braun and Clarke (2006) guided the exploration of the transcribed data:

- Transcribing and active reading of the transcript created the initial engagement.
- Coding roughly organised the data, allowing patterns to be identified.
- Overarching themes were produced from the coded data.
- The themes were reviewed and refined according to the appropriateness to the data, the research question, and the literature.
- The finalised themes were named and defined through the interpretation of the data semantics.

Procedure

A convenience sampling technique, followed by snowball sampling, was used to recruit participants. A website (www.boxinggym.com/addresses/south-africa.htm), listing boxing gymnasiums in and around Cape Town, was a useful resource, providing contact details to initiate contact. E-mails were sent out to most of these gymnasiums, but few responded. Nevertheless one gymnasium provided five boxers to interview, and another two. Three further participants were recruited via these contacts and references. The interviews were conducted where it was most convenient for the boxers, and five of them took place in the actual gymnasium. The other five were interviewed at public venues (for example, coffee shops). Participation was completely voluntary, and boxers signed informed consent forms prior to being interviewed. Confidentiality was assured and an ethics review committee of the Faculty of Humanities at the University of Cape Town approved the study.

RESULTS AND DISCUSSION

Aggression

The major theme explored in this study was how these boxers think and talk about aggression. The boxers were aware of negative perceptions about boxing and were realistic about the risks and dangers of the sport. Most of them, with two exceptions, addressed the issue of aggression obliquely and indirectly:

“It’s an aggressive sport because it’s about hitting each other but for me I don’t see it as aggression because, you know, it’s about showing who’s the best.”

Instead, all of them spent a great deal of time explaining the technicalities and emphasising the „scientific“ nature of boxing. They talked extensively about the techniques, combinations, strategies, game plans, and objectives of the sport, and the critical importance of thinking and strategizing in the ring:

“You know lots of people, they associate boxing with like a game of chess. Lots of strategy, lots of mental planning... You know, like, he’s going to make a move, you’re going to make a move.”

The passion that the boxers have for boxing was evident and it overrode the notoriety of their sport:

“But people they just take it another way because, you know, boxing sometimes you end up with internal injuries. Some of them, they passed away out of a fight so they just think, „Ah, it’s a brutal sport.“ But us, as boxers, we love our sport. That’s *our* sport.”

The amateur boxers had an additional defence about aggression, namely that amateur boxing was substantially less violent and dangerous than professional boxing. They indicated how they use heavier gloves, had extra safety rules and gear, and the increased value on a points win, rather than a knockout.

“What a lot of guys, what a lot of people don’t realize is amateur boxing is completely different to the professionals...A lot of the safety rules that get administered in amateur boxing, is not present in professional boxing...I think it was somewhere in America that they did this research and out of all those sports (contact sports – note added), amateur boxing was considered the safest contact sport that you could participate in. And a lot of people don’t realize that, especially parents.”

Wacquant (2004) described how boxers are supposed to manage violence and aggression through a consideration of the other’s skill and level of aggression. Six of the boxers in our interviews mentioned this principle of reciprocal regulation: they adjusted their level of aggression in relation to their opponent. One said: “I test him the first round. The first round I fight with him, *I feel him*, how good he is.” Another said that:

“You feel him out in the first round, that’s what you do, you don’t just go in there and destroy him. You first relax, see what he’s got. Like I normally use my jab, that’s my starting, the way I start *always*.”

For five of the boxers, reciprocity extended to their sentiments about injuring the opponent; they claimed that they could not feel bad about injuries they inflict since the opponent has the same opportunity to hurt them. (The title of our paper, “The hurt business”, in fact is a quote from one of the boxers: “We are in the hurt business”). An extract explains:

Q: And do you even feel bad about injuring your opponent?

R: “Yes”

Q: You feel bad?

R: “Yes, I feel bad. I don’t, I feel bad when I watch it after that one, maybe see, when I watch it on the TV. Then I don’t feel nice.”

Q: But in the moment?

R: “In the moment I don’t feel (bad), yes, because he’s thinking about it too.”

Q: Because he also wants to hurt you?

R: “Exactly, yes.”

Reading these extracts, it is difficult to judge where one can speak on intention to hurt. Overall one’s impression is that they shy away from statements that would reflect such intent, much in line with what Lane (2008) claimed. The role of the crowd in boxing is sometimes overlooked. Six boxers acknowledged the crowd as influential in a fight; they think that the spectators add an element of pressure that encourages the boxer to act more aggressively. One described the boxer’s relationship with the crowd:

“Because of, you know the adrenaline and the people around, the shouting and, the crowd. It makes really some kind of, you know, force inside of you. And it’s the

pressure, you know.”

“It (having spectators – note added) does add a different element to the boxing because sometimes – even if it’s not a good punch, but you land a punch – the crowd gets behind you. You get quite psyched up and you’re like „Agh, I wanna hit the guy again“...You become a bit more focused on how you look, cause you want to look good for the crowd.”

Fear of humiliation in front of the crowd was one of the major reasons one boxer gave for being so aggressive in his first fight:

“I was afraid of losing, I wasn’t actually afraid of getting hurt. I was more afraid of being humiliated and losing. That was my biggest fear and because of that I jumped in the ring and just jumped all over the guy before he even knew what was happening.”

Control

The self-regulation of arousal is one of the recurring themes in especially combat sport. The one emotion these sportspeople dwell on is anger. Robazza *et al.* (2006) have shown that appropriately managed anger was beneficial to the performance of judokas, wrestlers, and rugby players. In the current study, however, boxers explicitly deemed anger undesirable and unacceptable in their sport. Anger was regarded as taboo in the boxing world, and they claimed they never felt angry when they box. For example: “There’s no anger. I don’t feel. I mean, it’s nothing personal to the other guy. Why? Who would I be angry against?” But other aspects of their talk call for some caution to take this always at face value. One boxer for example said, while referring to when an opponent hurts you in the ring:

“That’s where of course, *of course*, you’re going to get angry. You’re gonna allow your emotions to take over. You’re gonna wanna bite this guy’s head off. But that’s where your mentoring comes in...you’re just wanna go out and not follow the game plan and wanna *kill* this guy. And that’s where your corner, your staff come in. Good coach, good mentor, so he can guide you...and calm your emotions down.”

Later in the interview, when asked whether he ever feels angry in the ring he said, “Never, *never*.”

What is true, however, is that all of them thought that it enhanced performance if emotions were blocked out in the ring. One said that:

“When the bell goes everything just switches off and you go into automatic...You’re focusing on what you’re doing at that stage. But then emotions (are) blocked out immediately.”

Boxers face a constant struggle between automatic reactions in a fighting situation – the arousal of anger, fear, and other emotions – and the machine-like, detached, and, extraordinarily controlled response that boxers aspire to and few actually consistently achieve (Wacquant, 2004). One respondent explained the conflict between reflexively responding aggressively when being hurt and the need to control that:

“You get a big hit and you just get angry about it all of a sudden – you can’t just fly in, you’re going to be open, you know. So it’s about controlling that aggression and taking the hits.”

Thus in the boxers' eyes, admitting to feeling anger in the ring may have indicated being out of control of one's emotions, something comparable to being an incompetent boxer.

The boxers expressed contempt for "wild" boxers – those who do not adhere to the norms of the sport. Six of the boxers described how losing control of aggression has detrimental consequences for the boxer: "Aggression is good but it definitely has to be controlled." Two respondents said:

"In boxing, the more you get emotional, the more you lose control and the more you get beaten. If you get angry in the ring, you lose control and you definitely can get hurt."

"Some boxers are aggressive in the ring, they don't stop punching – it doesn't matter whether they get punched back. Some others, you know, they're very smart, they don't punch until they see the target...a boxer should be smart and, you know, know what he's doing in the ring...He should really control (his) moves and know (his) opponent after one or two rounds."

When a boxer loses control of his aggression or anger, he loses focus and leaves himself vulnerable to attack by his opponent – loss of control is punished in the ring (Wacquant, 2004). The findings of Lane (2008) support these boxers: success is associated with amongst other things, low scores for anger.

There is one further aspect of controlling emotions: to dominate the other person's emotions. Power in the ring is not only exerted through physical domination. Four of the boxers emphasised psychological intimidation of the opponent. One said:

"The objective is, of course, to out-psych your opponent and to make them lose control so that you can capitalise. So you'll try all sorts of psychological tactics."

Another compared boxing in the ring to warfare, where what is important is the "psychological defeat of your enemy...you must overcome your enemy's desire to wish to continue."

Discipline

For many commentators boxing has positive effects on youth that otherwise would have gotten into trouble. Through the control of emotions referred to above, and the discipline that the practice and exercise regime installs in young people, they develop, among many things, discipline and self-confidence, and are kept off the streets. The boxers in the present study used a similar line of argument, highlighting the social benefits of boxing. Four spoke of the good that boxing does in society, especially for young boys from violent environments, and how boxing could be promoted as a positive social intervention:

"Show them (young boys in the townships – note added), talking a bit about discipline and being a good person and learning your sport and being proud of what you're doing."

The discipline of body, mind, and lifestyle is seen as a fundamental part of boxing, and boxers express pride in the *asceticism* they undergo for boxing (Jefferson, 1998). One of the boxers spoke with pride how he lost ten kilograms in ten days for a fight, and about his intensive training programme. Another one said he could never give up boxing:

"Because boxing is part of my life. I mean, I keep myself, I believe I'm healthy

because of boxing – I control my diet because of boxing, I control my drinking habit, I don't smoke because I'm boxing...if I do one or two weeks without training, you know, I could be sitting down and feeling like, you know, frustrated or something's missing."

Almost all of them spoke of sacrifices that this demanding sport requires of its followers. The extreme discipline that boxers exert over their mind and body also assists with the control of aggression, as one said: "the more you train, the more you don't want to be aggressive." Three of the boxers testified how boxing has made them less angry:

"Because, you know, before I was an angry guy, I was short tempered and tried to fight. But the time I was doing boxing, they were just telling me, „No, don't be angry.“ So at that time, that's when I was changing."

Q: So it was your coaching, it taught you not to be angry?

R: "Yes. So if I am fighting – even if I am – I don't get that anger."

Wacquant (2004) presented this aspect of boxing as a space where pent up aggression and negative emotions can be spent in a socially sanctioned manner. All the boxers in the present sample regarded boxing as a positive outlet for frustrations, extra energy, repressed aggression, anger, and violent tendencies. These potentially destructive internal forces can be appropriately vented, positively channelled, and safely relieved, released, and expressed via boxing.

Finally, an absence

Obviously the focus was only on men in this study (for an example of a study of women boxers, see, for example, Mennesson, 2000). Nevertheless, it was surprising that there was an almost completely absence of gender considerations in the interviews, despite (?) the fact that

the interviews were conducted by a young woman. When the debate concerning women's participation in boxing was brought up explicitly in the interviews, reactions were guarded. One briefly acknowledged the debate about women's boxing being banned from the Olympics, but promptly abandoned the topic without expressing an opinion. Another boxer thought "girls" should rather do judo, since boxing "messes up the face". One interviewee described a woman boxer whom he trains: "I've got a girl that – she's been boxing with me since she was 15 years old, she's now 22. Beautiful little girl. Well she's not a little girl anymore." This description, calling her a „beautiful little girl“, seemed to underplay the seriousness of this woman's participation in boxing and can be interpreted as trivialising female boxing in general. A similar sentiment went like this:

Q: Boxing is like stereotypically a male sport. What do you think of girls doing boxing?

R: "Boxing? I don't like to see it professionally cause they really do hurt each other. But on an amateur level, ah, ja, I think it's fine."

He later justified his view that females hitting each other seem "unnatural" and unsuited to boxing:

"But it's not really a boxing perception, it's more a like life perception, I guess. Women are supposed to be a bit more dainty than guys, kind of thing. They shouldn't, they shouldn't be hurting each other like that."

In other related talk, one could discern the metaphors of masculinity as well. Five of the boxers spoke about a boxer as having „heart“, a term referring to courage and bravery. One respondent gave a visual explanation of heart as a fighter:

“Like a *lion*, you see. Like you throw me in with a lion – maybe one lion to fight – I know the lion is going to kill me but I can’t leave it, you see. I have to fight to see maybe I can kill it... When I’m ready in the ring, I’m like a lion.”

Having heart in boxing additionally refers to the ability to “soak up punishment as well as dish it out” (Jefferson, 1998:83). Heart is a manly quality that boxers are proud of and which they believe elicits admiration from others.

Gender considerations cannot be further explored in this paper, given the brevity of references to it. But these few references, together with the heavy silences concerning female boxing, suggests, consistent with the literature (Wacquant, 2004), that the boxers regarded boxing as a distinctly male sport.

CONCLUSION

Boxing is a unique social arena where violence and aggression are sanctioned in the assumption that these aspects of the sport are controlled and disciplined through the contract of the contest. Qualitative interviews with 10 male boxers revealed that control and discipline were indeed portrayed as not only highly valued but essential to the sport. The control and discipline were used in the boxers’ discourse to justify and rationalise and it seemed at times

to lend acceptability to the violence and aggression. Through hints and inconsistencies in the boxers’ talk, it became evident that control and discipline were not always easy to maintain in the emotionally arousing conditions of a fight. For many observers boxing is an intensely masculine activity, yet it barely emerged unsolicited in these interviews. One reason could simply be that it did not occur to them, as the sport is so saturated with masculinity. Only when the interviewer raised it did they talk of women as boxers, and then in a way that suggested a link between the acceptability of violence and aggression masculinity.

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RICHARD RIVE: NON-RACIALISM IN A LIFE OF WRITING AND OF SPORT

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ABSTRACT

This article pieces together segments of the life and thought of writer, intellectual, sportsman and sport activist Richard Rive (1930–1989) in order to trace the genesis and promotion of his ideas of non-racialism, locating them in both his intensely personal experiences of childhood and youth, and in the formative socio-political, educational and sporting contexts of his time. It argues that formative to the man were his experiences as a child growing up under segregation and Apartheid in District Six, as well as the ideological influences of the intellectuals in the Non-European Unity Movement (NEUM) who were his teachers, and later colleagues and friends. The article, part of a larger project to write a biography of Rive, delineates and analyses his role in organised non-racial school sport from the 1950s to his death in 1989, and in the national non-racial body, the South African Council on Sport (SACOS).

Keywords: Richard Rive; Non-racialism; Non-Racial Sport; SACOS; Biography; School sport.

OVERVIEW

Richard Rive (1930–1989) is widely known in South Africa and abroad for his creative prose and literary critical work. His memoir, *Writing Black* (1981), reflects an assertiveness about being „Black“, not only as literal skin colouring, but primarily as a proclamation of a positive and resistant identity in the face of “the single most important theme in my life:

constitutionalised racism” (Rive cited in Bowman, 1989:n.p.). This article, drawn from segments of the biography of Rive written by the author (Viljoen, 2007), traces the genesis and promotion of his ideas of non-racialism, locating them in both his intensely personal experiences of childhood and youth, and in the formative socio-political, educational and sporting contexts of his time.

Writing Black highlights the racial situation at the time of his childhood and adult years. The early chapters of the memoir focus on the two areas of Rive’s youth, which were to become foundational to his whole life – his ambition to be a writer and his keen interest in sport. Even at an early age Rive was a champion athlete, winning prizes at amateur competitions organised by the well-meaning social workers in District Six, the area in which he was born and raised. Peter Meyer, a long-standing colleague in the sporting world and fellow educationist, traces Rive’s development as a sportsman:

His interest in athletics started at primary school and developed under the guidance of physical education teacher „Lightning“ Smith at Trafalgar High School. ... He excelled particularly in the four-hundred-yards hurdles ... and the high jump. During

the late 1940s he became the South African champion in these events, participating in the colours of the Western Province Amateur Athletics [and Cycling Association].¹

Rive joined the “exclusive, upper-class „Coloured“” Aerial Athletics Club (Rive, 1981:7; Meyer, 1989:n.p.) while at high school. Even his earliest aspirations of developing his talent as a sportsman were frustrated by the demeaning politics of racism and prejudice: “At first the members, all fair-skinned, were worried about my dark complexion, but relented because not only was I a mere junior but I attended Trafalgar High School” (Rive, 1981:7). This racist and paternalistic attitude encountered by Rive early on in life must have increased his determination to get the best education he could, and, in addition, to flaunt it as a retort to people judging him by the colour of his skin. Besides his participation in organised sport at this time, Rive was also keen on mountain hiking, often walking up the numerous tracks on Table Mountain with friends and students. He occasionally went spear fishing with Jim Bailey, owner of *Drum* magazine, whom he knew even before Rive made his ground breaking trip to Johannesburg in late 1955 to meet fellow writers who were on the staff of *Drum* magazine.

Every other aspect of life selected for display by Rive in *Writing Black* – childhood, teaching, studying, travelling – is consciously and demonstratively linked to the colour question and the system of racial oppression in South Africa. Rive’s memoir is as much protest literature, or “anti-Jim Crow”² as he calls it, as it is autobiography. Rive links his drive to be a writer to his being a keen reader as a child, a connection made by very many other writers when recounting memories of childhood.³ He adds, however, that he read voraciously and indiscriminately everything he could get his hands on “to escape the realities of the deprivation surrounding me” (Rive, 1981:9). He also insists on capturing the racial assumptions about the world of books embedded in the perceptions and reality of the young Richard (Rive, 1981:9):

I never questioned the fact that all the good characters, the hero figures, were White and that all the situations were White Books were not written about people like me.

Books were not written by people like me.

This chapter in his memoir, called “Growing Up”, covers the period between 1937 and 1955 and is in fact solely about Rive becoming a writer. It is noteworthy that a number of aspects of his childhood reading are foregrounded and conflated in his recreation of these early years. He establishes that he was a keen reader but also reveals that he was drawn to the classics of English literature (he names Shakespeare, Wordsworth, Scott and Haggard in particular) during his high school years. Clearly, Rive was not only genuinely inspired by what was canonised as great English literature, but was also consciously establishing and asserting his credentials as a cosmopolitan intellectual and writer in the memoir.

It was the discovery of the writers of the American Harlem Renaissance – Rive mentions in particular Richard Wright, Langston Hughes, Countee Cullen, Jean Toomer and Cedric Dover – that allowed the young Rive to find representations in literature that spoke directly to his own dilemmas and contexts and break the illusion that books were for and about “White Folks” (Rive, 1981:10). In his 1980 text “On being a Black Writer in South Africa: A Personal Essay”, Rive (1980) claims to have first encountered Hughes when he read *The*

ways of White folks at the age of 12, a book he found on the shelves of the Hyman Liberman Institute Library in Muir Street, District Six: “A new world opened up. This was about me and depicted my frustrations and resentments in a world obsessed with colour” (Rive, 1980:21).

SCHOOL YEARS

The young Richard was a top-performing pupil at St Mark’s Primary School until he passed standard four (Grade 6) and then attended Trafalgar Junior School in District Six until standard six (Grade 8),⁴ when he was awarded a municipal scholarship at the age of 12 to fund his studies at the prestigious Trafalgar High School in the District where, his memoir declares proudly, he studied “subjects with a ring about them” – Latin, Mathematics and Physical Science (Rive, 1981:6). Richard Dudley, a leading educationist and member of the Teachers’ League of South Africa, remembers encountering Rive at Trafalgar. Dudley was doing research at the school in 1944 when Rive was in standard seven (Grade 9): “[The young Rive was] an earnest, bustling, bright young lad, as yet unsure of himself ... Among a group of really gifted pupils, he was one who drew attention to himself.”⁵

Rive’s high school years coincided with the tyranny of Nazism in Europe and, with the defeat of fascism and its particular brand of racism, the renewed vigour of worldwide debate about freedom, equality, non-racialism, democracy and national independence. His years at Trafalgar High were to be formative intellectually and ideologically. Richard Dudley, a Non-European Unity Movement (NEUM) stalwart, captures the decisive intellectual influence the school had on Rive’s outlook on life:

[A]t Trafalgar a climate and ethos had been created which was unequalled in any institution for the oppressed at that time. For among the teachers were distinguished scholars like Ben Kies, Jack Meltzer, Suleiman (Solly) Idros, George Meisenheimer, Cynthia Fischer and the equally distinguished science teacher, H.N. Pienaar.⁶ This generation of teachers ... were the articulate bearers of a new outlook in education, a

team dedicated to excellence and selfless in their service to their pupils. ... It is here where the teachers brought into the classroom, from all corners of the world ... writers and their works to [nurture] the minds of their pupils. ... Through these teachers ... these scholars learnt that oppression was created by mankind, could be ended by mankind, and that a new society could be created too by mankind. (Dudley, 1989:n.p.)

The teachers Dudley refers to were part of an intellectual tradition coming out of the left-wing reading and discussion circles and broad social movements in the country, typified by the notion of a principled, programmatic struggle propounded by the All African Convention (AAC) and its constituent organisations, formed in 1936, and later by the NEUM, formed in 1943. Both these organisations propagated a struggle against racial oppression and economic domination on the basis of a minimum programme of demands, aimed at breaking with the dependence on ruling class largesse that was the premise of the nationalist politics of negotiation adopted by the African National Congress (ANC) at the time. These more radical intellectuals saw the limitations of narrow nationalism and were inspired by the ideals of the French and Russian revolutions, and by Marxism and Trotskyism. The NEUM, a broad front of civic and political organisations, reached the peak of its popularity in the late forties and

early fifties but then fragmented and was eclipsed by the more popular ANC and later Pan African Congress (PAC). The ideology of the NEUM, however, remained influential in the 1950s and beyond, and was marked by subscription to a radical anti-imperialist internationalism and to a policy of „non-racialism“. Unlike the „multi-racialism“ of the ANC at the time, the NEUM version of non-racialism challenged the notion of the existence of the category „race“ and insisted on a common humanity of all people and on a definition of national identity that stressed common interests rather than differences among South Africans.

The positions of the NEUM on national identity and non-racialism stemmed from an analysis of the international and national situations, suggesting that the ruling classes, both national and imperial, used vestiges of tribal culture and racial policies to divide and rule the oppressed. Thus any obeisance to „ethnic“/“racial“ or regional culture was seen as fostering a false and divisive identity. From the late 1950s onwards, the ideas of the NEUM were kept alive by smaller groupings and remained influential nationally, but especially among „Coloured“ intellectuals in the Cape. Rive became a very close friend of one of the younger generation of NEUM leaders, Victor Wessels, having taught with Wessels's wife, Daphne Wessels, at South Peninsula High School in Cape Town. It was largely through Wessels, but later, also under the influence of prominent NEUM members like Ivan Abrahams (a colleague at Hewat College during the seventies and eighties) and Harry Hendricks (with whom Rive worked in the Western Province Senior School Sports Union and in the South African Council on Sport), that Rive consolidated and refined the intellectual leitmotifs of his life-commitment to non-racialism, principled struggle, universal equality and humanism. These had been seeded during his days under tutelage of the teacher-scholars at Trafalgar High School, from experiences on the sport field as described above and from ideas in the books in libraries he chanced upon by himself, as a determined, curious and avid, bright young reader.

While at school, Richard joined the scouts rather than the church brigade, as the family, according to Rive, thought the former more respectable than membership of the church lads“ brigade which entailed “marching through the streets behind a blaring, tinny band” (Rive,

1981:6). It was while he was in the Second Cape Town Boys' Scout Troop that he first met Peter Clarke, who was to become a good friend and fellow artist. Rive's developed sense of the iniquities of racialism and his courage to speak out against injustice even as a young adult, are clear in the following extract from a letter he wrote to Langston Hughes dated 10 February 1955:

Concerning the Boy Scouts in South Africa, it is divided into racialistic groups. When Lord Rowallen, chief scout of the world, visited South Africa, a preliminary meeting of Scouts was called to "decide on the questions he was to be asked". People started asking silly questions like official length of garter-tabs and colours of scarves. Everyone shirked the political issue till I asked "whether the division of Scouts into racialist groups as practised in South Africa was in accordance with true Scouting principle and tradition"! Complete chaos. When we met Rowallen I asked the same questions and of course things were made so hot for me that I resigned. My troop threatened to resign in protest. But I objected (Rive, 1954-1966).

In this letter there is a glimpse, in both the actual event recalled, as well as in the rhetorical representation of self in the narrative (with its evident sense of rhythm, drama and climax), the fearless, outspoken leader of the troop, the irrepressible and just voice of a leader of the silent, oppressed masses. These were qualities that were to serve him well in his later involvement in sporting organisations, giving him the articulate edge when it came to formulating policies and resolutions, and when tackling opponents and enemies alike.

STUDENT YEARS

After Rive completed high school in 1947, he worked as a clerk at a business called Phil Morkel, "[b]ut after two years," Hendricks (1989:n.p.) suspects, "he must have felt that business talk was too limited a field for him". Perhaps he had already decided to bide his time, earning the money he needed to pay his way through college. Then, in 1950, he registered at Hewat Training College in District Six where he completed his training to become a high school teacher of English. At Hewat, Rive met fellow students like Ivan Abrahams and Albert Adams, who became his friends, fellow artists and political comrades. Ivan Abrahams remembers first meeting Rive when the former arrived as a first-year student at Hewat and Rive was in his second year. Rive, according to Abrahams (1999), had garnered a reputation as a 400-yards hurdle champion. Abrahams, also a champion runner at his school, Athlone High, helped encourage Rive's sporting career, even to the extent of carrying his tog bag. He remembers Rive having a very impressive style of sprinting which, Abrahams (2005) claims, Rive picked up from the Americans.⁷ What exactly Abrahams meant is unclear, but it was one of many intimate and formative connections Rive was to have with America throughout his life.

TEACHING YEARS

Rive completed his teacher training at Hewat College in 1951 and, according to Harry Hendricks, he then "taught at Vasco High School for a year and during that year was one of the teachers instrumental in the formation [and] the founding, in 1956, of the Western Province Senior Schools Sports Union."⁸ After Vasco High, Rive joined the staff of one of the most prestigious Coloured high schools, South Peninsula High School, where he

eventually became head of the English Department and where he taught for almost two decades, spending some of those years overseas and a few teaching at Athlone High School. He still lived in Walmer Estate at this initial stage but later, in order to be nearer his workplace, moved to lodge in Second Avenue, Grassy Park “with an aggressively respectable family, who insisted on ignoring their even darker neighbours” (Rive, 1981:111). At the start of his career at South Peninsula High he taught Latin and English, and his principal was Attie De Villiers – one of his own teachers at Trafalgar High.⁹

Together with colleagues at the school like Wilfred King, Rive established a reputation for South Peninsula as a top-performing contender in inter-school athletics championships. He also made his mark as athletics coach and administrator while at the school. In 1956 he continued to be a leading member of the Western Province Senior Schools Sports Union. He served on the executive committee of the body till his appointment at Hewat in 1975. In 1958 he helped form the South Peninsula Athletics Club in order to consolidate and extend the work being done in sport at school level. With the formation in 1961 of the South African

Senior School Sports Association, Rive became a national player in the field of athletics administration. Meyer observes:

Richard became a Western Province delegate to the South African Senior School Sports Association, and served on the executive for many years. His wit, his irony, his sarcasm, and eloquence in debate made him a fierce and feared opponent ... He could analyse a situation to the point of being clinical, and could formulate resolutions and motions very concisely and accurately. But he was sometimes very impatient and arrogant. He came across as somewhat of a braggart¹⁰ (Meyer, 1989:n.p.).

In 1952, while teaching full-time, Rive decided to register as a part-time student for his Bachelor of Arts degree at the University of Cape Town, majoring in English. He continued to write creatively in his spare time. Teaching, writing, organising sport, and studying made their demands on his time and he eventually graduated with his BA ten years later, in 1962. It was in one of the registration queues, in 1959, that Rive and Alf Wannenburg met and became friends and writing comrades with a shared passion for sport.¹¹

In one of his very first letters to Langston Hughes, dated 30 July 1954, the budding 24-year old Rive paints a detailed, fascinating picture of his typical day at the time:

I awake at six in the morning at my home in Walmer Estate (a select Coloured area where Africans are seldom seen, but don't blame me), and catch a bus to Cape Town Station. I am allowed to sit anywhere in the bus, but in Johannesburg I can only sit upstairs, three seats from the back and in Durban I will be allowed to sit where I like (because I'm Coloured) but Africans and Indians must sit upstairs.

At the station I board a section of the train where anyone may sit, but under no condition may I sit in the compartments labelled „*Blankes Alleen*“ as those are reserved for Whites. I have regular friends I meet on the train, Hepburn who is a Master of Arts and has a keen sense of humour, Bill Currie who is an outstanding actor but will never be able to act in National Companies because of his colour and Arthur whom I suspect seeks solace in Roman Catholicism. Our conversation reaches a high standard, most probably far higher than most of our counterparts.

At Deep River I alight and walk 200 yards to pleasant South Peninsula High (a school for Coloured pre-University students) where the students are well dressed and fed and come from better-class homes. Here I meet fellow lecturers who mostly belong to the Teachers' League of South Africa (a militant teachers' body now outlawed by the Department of Education). I lecture in Latin and English Literature and in addition take students for track athletics and swimming. After finishing here I attend lectures of the University of Cape Town (one of the two Universities in South Africa where no colour-bar is in operation) and am allowed in the same lecture room as White students. I should have mentioned that there is no academic segregation but a rigorous social segregation is observed, and I am not allowed to represent my University at Sport or functions attended by Apartheid Universities. After my lectures I usually go home and then to the Athletics Track, which we are allowed to use on two nights a week when the Whites do not use it. After this I either go to a political lecture, N.E.F. (New Era Fellowship, a militant Non-European Unity Movement (NEUM) organisation) or

M.Y.S. (Modern Youth Society, a group of radical youths with Leninist tendencies) or listen to the Cape Town Municipal Orchestra (no colour bar) or have the option of attending a Coloured cinema where a notice is usually displayed bearing the legend „Not for Natives (Africans) and children under 12!!!“ Or I watch the University Ballet in which Coloured Artists are allowed to perform or drama at the Little Theatre. I belong to the University Library, Public Library and Educational Library (in any other provinces there would be no library facilities for Non-Europeans whatsoever).

Were I an African, life would by no means be quite as pleasant. I would have to live in a location about 30 miles from Cape Town (Langa) earn a mere pittance and find a social if not economic bar to most cultural matters. I would also be open to abuse from both Whites and Coloureds. An African friend of mine Mchigi was almost knocked over by a Coloured skolly (hooligan) and told „Voetsek Kaffer!“ while in my company. Mchigi holds an M.A. degree in philosophy but is spurned as a Kaffer. The favourite term of abuse for Coloured people is „Hotnot“ or Hottentot. I have been called „Kafferboetie“ (friend of Kaffers), a frustrated intellectual, a pernicious [sic] influence, „geleerde Hotnot“ (educated Hottentot), cynic, etc. During vacation I usually travel extensively through South Africa, and that is when the fun starts. It is then that I am made to feel my Colour and see the system in operation.

This letter is remarkable for the manner in which it conveys a finely observed sense of how racial politics infiltrated and demeaned every aspect of the young Rive's daily life; for what it reveals of the young artist's eye for lurking class distinctions nevertheless present within the overriding issue of race; for Rive's empathy with those like Mchigi who were even worse off than he was; for his strong sense of himself and his circle as cultured, urban intellectuals and members of a radical resistance to racial oppression; for his ability to portray character in concise and vivid ways; and for his irrepressible wit and the humour that cannot help but rear its head in his writing.

His fearless breaking of the silence on racial issues must have been spurred on by his own experiences of racist attitudes towards him because of his dark skin. While the progressive teachers at Trafalgar High were to help him formulate his non-racialism, there were others whose reactionary attitudes must have hurt him deeply and alienated him. Gilbert Reines, who was a fellow pupil with him at Trafalgar, remembers one such standard six teacher he

and Richard had at the school:

You know, in those days, you had to bring your mug to school to receive milk, and if you've forgotten it, [this teacher] used to put a saucer on the floor with milk in it, and make you lick it, you know, lap it up like, like a cat. ... And ... he always tried to catch Richard out, I think for something or other. But one day ... he said to Richard very seriously, „oh d'jys 'n slim kaffir“ [„oh, you're a clever kaffir“] (Reines & Reines, 2005:27).

In the classroom, on the sport field, in the street, inside the home – wherever he turned, it must have seemed to him that he was being ceaselessly assaulted by soul-destroying hatred.

Concurrent with Rive's highly conscious and ideologically well-developed opposition to racism was a fraught subjectivity with regard to his own dark complexion. Rive was widely known to students at South Peninsula High School and at Hewat College of Education¹² where he lectured, as „*Chokka*“, an affectionate but nevertheless bigoted reference to Rive's very dark skin colour (the word „*Tjokka*“ is Afrikaans for squid or cuttlefish and alludes to the creature's intense black secretion).¹³ Van Wyk (1999), who came to know Rive and his work in the mid-seventies and eighties, says about this nickname:

[Rive] was also treated with contempt by some of his students, who resorted to calling him „*Chokka*“, a corruption of chocolate because of his dark skin. This was a label, which he totally abhorred. On the other hand, he also enjoyed making fun of himself by saying: “I'm so black, I'm navy blue.”¹⁴

It was, however, not a nickname anybody dared use to his face as there was an intuitive awareness of his sensitivity and also, possibly, users understood that the name, despite its affectionate or playfully deflationary connotations, carried derogatory or even racist overtones whether these were intended or unintended.

SOME WRITINGS

Almost 20 years later, Rive entitles his memoir *Writing Black*. The title is an accurate polemical statement of Rive's political allegiances, and possibly concomitantly an astute marketing strategy, for Black Consciousness had become a popular philosophy and commodity by the time Rive's memoir was published. „Black“ has now become a positive, political signifier inspired by Fanonism and the confidence that came to the oppressed with the rise of the Civil Rights Movement in America and its refraction in South Africa, the Black Consciousness Movement of the late sixties and early/mid-seventies. It is for Rive what Daryl Lee accurately calls “a strategic blackness” (Lee, 1998:12).

Concurrent with this Africanist rhetoric evident in the title of the memoir, one continued to hear Rive's very pronounced hallmark Oxbridge (to the South African ear at least) accent, deliberately cultivated by him even before he spent time at Oxford completing his doctorate. He in fact asserts this (Western) cosmopolitanism he deliberately embodies as a very conscious antidote to „racialised“ and „ghettoised“ „Coloured“ identity imposed by Apartheid when he proclaims in *Writing Black*:

I, personally, am able to empathise with no world other than that of Western European sophistication and unsophistication. I have never had the opportunity to identify, like Langston Hughes in *The Weary Blues*, with
The low beating of the tom-toms,
The slow beating of the tom-toms...

I cannot be what the propounders of negritude or the African Personality cult would have me be. I am Johannesburg, Durban and Cape Town. I am Langa, Chatsworth and Bonteheuwel. I am discussion, argument and debate. I cannot recognise palm-fronds and nights filled with the throb of the primitive. I am buses, trains and taxis. I am prejudice, bigotry and discrimination. I am urban South Africa (Rive, 1981:23).

It's as if here Rive is defiantly saying, you see me and pigeonhole me as a Black man, inferior, primitive, but I defy you – I am not your „Black“; I am cultured, cosmopolitan, and, as the accent would testify, have the best education in the world. Rive's affected, accentuated manner of speaking is another reflection of his very conscious but also paradoxical self-fashioning, and of his drive and defiance.

From December 1962 to September 1963, Rive travelled up the coast of Southern Africa by boat and then through Africa on to Southern Europe and finally to London, funded by a Farfield Foundation Fellowship secured for him by his dear friend, mentor and fellow writer Es'kia Mphahlele. On his return to the Cape, in September 1963, at the relatively early age of thirty three, Richard Rive had clearly arrived as an established, celebrated writer widely known locally and internationally, but in a country now once again controlled with an iron fist by a White supremacist regime where both his books had been banned – *African Songs* (1963) while he was travelling abroad and *Emergency* (1964) soon after he arrived back. Later, in 1965, *Quartet* (1963) was also banned. With his wry sense of humour, he claims in his memoir, “I was now part of a small élite of South African writers not allowed to read their own works in case they became influenced by them” (Rive, 1981:109). On the verge of returning home from his trip abroad, he had, as he says, “serious doubts about the wisdom of returning” (Rive, 1981:108). It is clear that he grappled with the dilemma – to stay in London would mean freedom from all he had fought against; to return meant facing a harrowing, uncertain and unsafe future. He finally chose not to stay in London where he felt he could “avoid all this” (Rive, 1981:108) but to return to what was his home. He does not say what swung the balance, but does speak of an intense longing for home that took hold of him towards the end of his long and frenetic trip abroad:

I longed once again to hear the traffic faintly roaring past my flat on Rosmead Avenue. I longed to dive into the cold water outside Gif Kommetjie and prickle the fleshy lace-edge of abalone between the rocks. I longed to climb along Waterfall Buttress under dark caves wet with dripping ferns. I wanted to share the hilarity of interschool athletics with rosettes, caps and war cries. I wanted to sit at the quiet of my desk in the very early morning, working away at my writing (Rive, 1981:107).

The yearning for the landscape and rituals of home, and in particular his strong sense of obligation and self-fulfilment, even exhilaration, that attended his work in education and sport were what seemed to draw him back. But perhaps the pain of home was simultaneously the very source of his creative life. And, in addition perhaps, it was his sense of commitment to a writing life and struggle back in South Africa that brought him back home.¹⁵

On his departure for Oxford in 1971 to undertake doctoral studies at Magdalen College, Oxford, Rive must have felt enormous relief at the prospect of respite from the relentless, enervating conditions of the oppressive middle and late 1960s at home. His first two months at Oxford, September and October of 1971, were, however, filled with a yearning for home and depression associated with dislocation and the ever-present burden of the demanding doctoral work that lay ahead. His research was finally completed by 1973.

On being awarded his doctorate, Rive must have been elated, reaching the zenith of the quest to educate himself; a path that he relentlessly embarked on when he was still a teenager, often

against daunting odds. On his return to Cape Town he went to his sister Georgina to proudly proclaim (as he would to many others), in typical, somewhat camp Rive-pose when he was chuffed with himself – his thumbs tucked under his armpits and fists limp in front of strutting chest, lips pouting – that he was “a doctor of literature, *not* of medicine”.¹⁶ His pride at his Oxford achievement would also be reflected in the way he peppered his Selous Court flat with Oxford memorabilia, and in his frequent wearing of his Oxford T-shirt and display of other forms of Oxford heraldic symbols. But as on every other sojourn out of the country, his elation at what he had achieved and his determination to go back home were deflated by the dispiriting reality of the situation back home:

I was returning to South Africa because that was where I belonged. I had no idea what to expect, whether there had been meaningful changes or not. I certainly did not expect any preferential treatment. In spite of my achievements and qualifications, I was still an unenfranchised Black suffering under a policy of racial discrimination, born and nurtured in a notorious slum in a beautiful city in a bigoted country (Rive, 1981:145).

Despite this, returning as a doctoral graduate of Oxford, he could use this educational status and defiantly see himself as “a member of one of the largest, most exclusive and influential old-boy networks in the world” (Rive, 1981:145).

After resuming his normal working life on his return, Rive continued to be active in school sport and it is in this regard that Wannenburg contacted him during this period. As a journalist for the *Sunday Times*, Wannenburg was asked to edit a page reporting on Coloured sport as the newspaper had only depicted White sporting events till then. Rive agreed to help and, according to Wannenburg, organised a number of his former pupils to gather sporting results and match reports. However, Rive insisted on having a weekly column that often raised questions of sport and politics and which the conservative editors disliked. They put pressure on Wannenburg to cut out Rive’s column altogether. This caused a break in their friendship, recalled by Wannenburg in his memoir of Rive:

Inevitably there was a showdown with Richard, who arrived at my home one Sunday morning, demanding to know why I hadn’t used his column. Naïve about the workings of newspapers, he brushed aside my explanations and, insisting that it was a case of interfering with editorial independence, broke with the *Sunday Times* – and with me (Wannenburg, 1990:37).

What to Wannenburg was naivety was to Rive a matter of principle. Rive could be a formidable adversary in an argument or a conflict, not baulking at confrontation, standing by what he believed to be right and just even if it meant ending a friendship. But on occasion „principle“ was imbricated with ego and self-promotion. Having agreed to write for such a „separatist“ sport page in the first place, Rive must have strategised that he could use the opportunity to make comments on sporting issues and, inevitably, on the political aspects of sport at the time. His profile as a writer and columnist would, at the same time, be raised in the most widely read newspaper in the country.

A year after his return from Oxford, in 1975, Rive took up a senior lectureship in English at Hewat Training College where he was to remain for the next 14 years, till his death in 1989. Taking up a lectureship at his alma mater, where some of those who taught him were still on the staff, must have been cause for pride, especially returning there as „Doctor“ Richard Rive. He was at this time back in his flat at Selous Court, and Stephen Gray, fellow writer and friend, teasingly talks of him at this time as “*Rishard of Saloo Court*” (Gray, 1999:163) while others begin affectionately and admiringly calling him „Doc“.

Rive taught English literature and didactics at Hewat, and continued his active involvement in the Western Province Senior School Sports Union, Hewat College being a participating member of the union, competing at the self-same athletics meetings as the high schools. When he could, he continued writing, albeit haltingly, and continued to play an active role in sport administration. Michael Chitter’s biographical vignette of Rive traces his recollection as a young school athlete of a trip to Johannesburg in 1975 under Rive’s supervision. The piece captures the fascination and the fear Rive induced in the minds of his young charges:

[Rive] was part of the teacher contingent that accompanied about one hundred Western Province athletes to the national South African Senior Schools Sports Union Athletics Championships. I was walking alongside him and five other fourteen-year old Western Province athletes... The rule was always to remain obscure in his presence. I was always trying to prevent becoming a victim of his often stinging insults and disparaging remarks.

He had a way with words and most of the youngsters could not avoid hanging around him – even at the risk of becoming targets. He entertained them with his vocabulary. Any feature along the wayside that reminded us of the Cape Flats would make for entertaining comedy. The secret was to remain relatively obscure, but within earshot of his antics (Chitter, 2004:103).

He made it known and those around him felt it – he was at the top of the ladder of educational achievement; he was Dr. Richard Moore Rive. Yet, while relishing the respectability, he remained radically opposed to racial inequality and relentlessly continued to undermine White superiority wherever he could.

The waves of popular opposition to Apartheid rule inside South Africa ushered in by the student revolts of 1976 continued to grow in the eighties; by 1985 the trade union movement had established itself as a major force in resistance politics locally and nationally, the exiled resistance movements had established internal presences and the ANC-inspired United Democratic Front (UDF) was launched with widespread support in „Coloured“, Indian and African townships. More socialist-orientated groups like the New Unity Movement and the

Cape Action League had also started to emerge. The organisations with which Rive was associated, the New Unity Movement (a reincarnation of the Non-European Unity Movement) and the South African Council on Sport, had garnered widespread support within civic and sporting associations, and amongst teachers in the province through the influence of the Teachers' League of South Africa.

Hewat College, where he had been lecturing for 12 years by 1985, was surrounded by

primary and high schools and the contacts between the schools and the college were particularly strong because the schools were used by the student teachers from Hewat for their practice teaching sessions. In addition, the college was quite strategically located between two main arteries, Thornton and Belgravia Roads that lead from central Athlone, the heart of the Cape Flats, down to the townships in the South. When the schools erupted during the protests in 1985 and 1986, Hewat was equally affected. Hewat, like the schools around it, faced a series of student actions like sit-ins, marches, refusals to write final examinations and demonstrations against retaliatory actions of the state, including the closing of the schools. Rive and some of his colleagues at Hewat played a critical role in helping to support, redirect or defend the actions of the students and the wider civil action that the surrounding communities and political organisations had initiated. Besides the school protests, two historic events of this period occurred on or just next to the Hewat campus. The callous shooting of children by policemen concealed in a truck (what came to be known as the Trojan Horse incident) happened in Thornton Road and the regrouping of the march, led by Alan Boesak, from Athlone stadium to Pollsmoor prison to free Nelson Mandela, also took place on Hewat grounds.

For the last four decades of his adult life Rive had been campaigning against one or other form of racial injustice. While he continued to be active in sporting organisations in the last few years of his life, his literary work consumed his time and energies in what was the most productive period of creativity in his life. By the mid-1980s he had achieved a reputation as a leading and flamboyant literary and civic figure in local and national anti-apartheid struggles. He continually insisted, in both his 1986 novel, *„Buckingham Palace’, District Six*, and his critical essays and speeches (Rive, 1983), that the struggle for District Six was to be seen not as singular but as representative of all forced removals around the country. His fiction and critical works influenced the thought of fellow activists and intellectuals trying to reconceptualise memory, space and identity. Rive's refrain in his novel *„Buckingham Palace’, District Six*, often mouthed by the hero/gangster Zoot but clearly authorial in voice, that District Six “was never a place – that it was a people” (Rive, 1986:198), is a rhetorical articulation of his position that physical space and human dignity are inextricably interconnected.

A TRAGIC END

Rive's tragic and senseless death on 4 June 1989 at the hands of two young men in what was clearly a gay-bashing, made headlines in the *Cape Times* – “AUTHOR RICHARD RIVE MURDERED”. There was an eerie silence in the staff room at Hewat as we arrived for work and stood around in groups talking in strangely hushed tones.¹⁷ Colleagues like Ivan Abrahams had to cope with a barrage of questions from newspaper reporters about Rive's homosexuality in the week that followed. He refused to confirm or deny that Rive was gay.¹⁸

The press that week was filled with numerous articles on the murder and tributes to Rive. J.M. Coetzee was quoted in the *Cape Times* article of 5 June as saying that Rive was a “distinguished writer and critic, although not adequately recognised in South Africa” (p. 2). As there was no next of kin to whom those who wanted to pay homage could write, the College took on that role.

A very small and private burial and cremation were arranged by some of Rive’s closest and

most loyal friends on 10 June and a memorial service was held at Hewat College on 13 June. Present and on the panel paying tribute were Es’kia Mphahlele, Ivan Abrahams, Richard Dudley, Jan Rabie, Edward Pratt, Peter Meyer and Harry Hendricks. Obituaries and tributes by fellow writers in the form of poems and short recollections appeared in a number of publications. There was a collective sense of utter incomprehension and of nihilism at the brutal murder of a most remarkable storyteller, a writer and a fighter, and a visionary. His voice and spirit continue to this day, through his legacy we have in his creative work, and, in less obvious and more embattled but no less powerful ways, the legacy he has left in the history of non-racial sport in a country that remains deeply divided.

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ENDNOTES

- ¹ Peter Meyer’s tribute, read at Hewat College memorial service for Richard Rive soon after his death in 1989. The audiotape of the tributes of Hendricks, Meyer, Dudley, Pratt *et al.* was in the possession of Dwane Harris but has subsequently been donated to the District Six Sound Archive. This quotation and subsequent ones of other tributes at the memorial used in this article were taken from transcripts of these recordings.
- ² In 1979 Rive was one of the keynote speakers at the conference of the African Literature Association of America held at the University of Indiana in Bloomington. His paper was titled “The Ethics of an Anti-Jim Crow” and emphasised the complete exclusion of Black people from normal national civil society in South Africa. *Writing Black* grew out of this paper.
- ³ See Antonia Fraser’s (1992) compilation, *The Pleasure of Reading*. She documents accounts by a number of prominent writers who recall what avid readers they were as children.
- ⁴ Information about the schools Rive attended is taken from Harry Hendricks’s tribute to Rive at the memorial service for Rive at Hewat College.
- ⁵ Richard Dudley’s tribute to Rive at Hewat College memorial service.
- ⁶ Ben Kies was the most influential of these scholars and teachers. He was regarded as the leader among the NEUM leadership. His tall and sturdy bearing complemented his incisive intelligence, encyclopaedic knowledge and his ruthless, forthright manner. While Rive revered him as a teacher and as an intellectual, Kies was disparaging of Rive’s character and dismissive of his work and ideas. Kies felt that he tended to be an opportunist and a poseur and that his work was trite and reinforced stereotypes.
- ⁷ Ivan Abrahams. Personal interview. What Abrahams means by “American” style of running and how Rive picked this up is unclear. But it is yet another perceived or real link between Rive and America.
- ⁸ Harry Hendricks’s tribute to Rive at Hewat College memorial service gives this date as 1951. Rive, in a letter to Hughes dated 30 July 1954, also gives this date as 1951 contradicting the date (1952) he gives on page 111 of his 1981 memoir. The course at Hewat was a two-year offering and the memories of Abrahams and Adams, and the evidence from the Hewat magazine as well, place him there in 1950 and 1951.
- ⁹ Hendricks’s tribute to Rive at Hewat College memorial service.
- ¹⁰ Peter Meyer’s tribute to Rive at Hewat College memorial service.
- ¹¹ Date taken from Wannenburg’s “Memories of Richard”.
- ¹² Hewat Training College changed its name to Hewat College of Education, probably when the institution was transferred from the Cape Education Department to the Coloured Affairs Department in 1963.
- ¹³ Craig Mackenzie, one of the external examiners of my work on Rive when it was submitted as a Ph.D. dissertation, suggests that this explanation of the etymology of the name is a dubious one.
- ¹⁴ Milton van Wyk. A written response to a personal interview.

¹⁵ The biography I am working on raises issues around Rive's homosexuality, and both his own and his peers' silence on the matter. There are, however, indisputable encodings of both homoerotic desire and envisioning of alternative family structures in his fiction, I argue.

¹⁶ The Manuels' (2002) claim that "when he graduated he went to her [his sister Georgina] to say he was a doctor „of literature, not of medicine“, something he often used to stress." The description of his proud and camp pose is my own reconstruction, not theirs.

¹⁷ At the time of Rive's death I was a colleague of his at Hewat, having joined the English Department, which he headed, in 1987.

¹⁸ Ivan Abrahams. Personal interview.

SOCIO-CULTURAL BARRIERS TO PHYSICAL ACTIVITY AMONG BLACK ISIXHOSA SPEAKING PROFESSIONAL WOMEN IN THE NELSON MANDELA METROPOLITAN MUNICIPALITY

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ABSTRACT

Chronic diseases of lifestyle in South Africa are on the increase, as shown by recent studies. Black women, who have the country's highest levels of inactivity, overweight and obesity, are particularly at risk. This study used qualitative methods to investigate barriers to physical activity participation in two generations of Black professional women (teachers, nurses, social workers and public managers). The two generations reflect pre- and post-democracy age groups in South Africa. The older generation (n=20), aged 35 to 45 years, spent their formative years in apartheid South Africa, disadvantaged by racial policies. The younger generation (n=27), aged 18 to 21 years, spent their formative years in post-apartheid South Africa, post-1990, under a constitution which guarantees equality and non-discrimination. In-depth qualitative interviews, utilizing an interview guide, were used to collect data from the participants until data saturation was achieved. Data from the interviews were transcribed, analysed and verified in accordance with Cresswell (2003) and Guba's model of trustworthiness (Krefting, 1991). Three sub-themes were identified relating to barriers to physical activity participation: personal, environmental and socio-cultural factors. The socio-cultural factors, the focus of this article, included the lack of social support, exercise "not being a part of African culture", traditional gender roles, dress code, exercise associated with the young, exercise associated with undesirable weight loss and "destructive talk" by the community. The findings have highlighted misconceptions about exercise. Conservative socio-cultural barriers will have to be overcome before physical activity is seen as normative behaviour for Black women in a South African context.

Key words: Physical activity; Socio-cultural barriers; Black women.

INTRODUCTION

Many of today's chronic diseases are associated fundamentally with the pervasive sedentariness of modern life (Sparling *et al.*, 2000). The association between physical inactivity, adverse health conditions and hypokinetic diseases has been widely researched and acknowledged as a growing concern world-wide (Dishman *et al.*, 2004). Recent surveys and studies have revealed that the South African population has moved towards a disease profile

similar to Western countries, with increasing deaths attributed to chronic diseases of lifestyle (Steyn, 2006). Black women with the country's highest levels of inactivity, overweight and obesity, have been identified as a high risk group (DoH, 2002; WHO, 2005).

Despite on-going research and a growing body of knowledge on physical activity in South Africa, there is still a lack of data on the determinants and constraints to participation in physical activity (Lambert & Kolbe-Alexander, 2006). Researchers of leisure studies and physical activity have emphasized the complexities surrounding physical activity participation and commitment to active lifestyles (Henderson & Ainsworth, 2003).

In both developed and developing countries, cultural patterns as well as economic, political and ideological orders affect the participation of women in sport (Hargreaves, 1994). Historical and social conditions have similarly affected the physical activity and sport participation of Black South African women. This article examines socio-cultural barriers, and focuses on those barriers that are unique to a South African context. Within the complex political history of South Africa, Black women have been severely disadvantaged by the past government's policy of apartheid which included discriminatory laws and practices and encompassed migrant labour, segregation, forced removals and poor living conditions for Blacks (Bernstein, 1985). The oppression of Black women also came from historical and cultural conditions: they have been marginalized in their own patriarchal societies (Goosen & Klugman, 1996; Nauright, 1997). According to Roberts (1992), the majority of Black South African women suffer triple oppression on the basis of their class, colour and gender. This inhibits their participation in various forms of leisure and recreation.

However, the role and position of women in South Africa has changed dramatically over the past transitional decade. South Africa's transition to a new democracy was accompanied with a call by women to address gender inequality at all levels (Seidman, 1999). During the negotiations for a new constitution, between 1992 and 1994, women's organizations played a pivotal role in ensuring that women's needs and interests should become part of the debate about rights. The battle for gender recognition was not in vain and gradually the political demands were for a non-racial, democratic and *non-sexist* South Africa (Meintjes, 1996).

The constitution guarantees the equality of women and allows for affirmative action to address gender and race inequalities (Kadali, 1995; Constitution of the Republic of South Africa, 1996). Many laws which discriminated against women have been changed or repealed. The post-apartheid government has shown commitment to gender equality (Hassim, 2003) with the establishment of bodies dealing specifically with gender issues and instituting, more recently, the Ministry of Women, Youth, Children and People with Disabilities. While much has been achieved in terms of policies and legislation, the day-to-day social realities of many women remain unchanged (Meintjes, 2005).

In post-apartheid South Africa the legacies of colonialism and apartheid still shape women's access to sport (Pelak, 2005). A report by the South African Sports Commission (SASC, 2004), aimed at establishing the impact of democracy on the status of South African girls and women in different sectors of recreation and sport, highlighted the adversities facing women. A patriarchal society, poverty, sexual harassment, and a lack of access to appropriate facilities are some of the reasons given for the continuing position of women in sport in South Africa (SASC, 2004).

Although democratization has encouraged South African women to imagine new possibilities (McFadden, 1992; Seidman, 1999; Pelak, 2005), the extent to which the new dispensation has

improved the lives of Black women is debatable. The legacies of colonialism and apartheid, as well as historical and cultural patriarchy, still shape their lives. Patterns of social change do not emerge immediately with legislated change, but manifest over time.

This article emanates from a larger study that used a mixed method approach to achieve a holistic understanding of physical activity in the lives of two generations of Black, isiXhosa speaking, professional women (N=180) in the Nelson Mandela Metropolitan Municipality. To assess cross-generational change that indicated the effect of formative years spent under different political dispensations, the two groups were chosen to reflect pre- and post-democracy age groups in South Africa. The older generation (OG) (n=111, aged 35 to 45 years, mean age=39.87 years) spent their formative years under the Apartheid system, subjected to its discriminatory laws and practices. The OG was comprised of community teachers, nurses, social workers and public managers. These women, through their various occupations, were in constant contact with their communities and could be regarded as role models who influence community lifestyle, attitudes and behaviour. The younger generation (YG) (n=69, aged 18 to 21 years, mean age=20.12 years) spent their formative years in post-apartheid South Africa, post-1990, under a constitution which guaranteed equality and non-discrimination (Constitution of the Republic of South Africa, 1996). The YG was comprised of teaching, nursing, social work and public management students.

Quantitative data which included the height, body mass and various health and physical activity measurements — the Health-Promoting Lifestyle Profile (HPLP) (Walker *et al.*, 1987), the Global Physical Activity Questionnaire (GPAQ) (WHO, 2009) and ActiGraph GT1M accelerometer — provided baseline information on the health status and physical activity patterns of the participants. The results indicated that both the OG and YG had lower health promoting behavioural practices than expected, and significantly higher levels of overweight and obesity and significantly lower levels of physical activity than the South African norms (Walter, 2008). The GPAQ scores indicated that 100% of the OG and 95% of the YG were sedentary or minimally active (Walter, 2008).

This finding prompted questions about the nature of constraints to physical activity participation experienced by the participants. This article reports on this specific objective of the larger study, in which qualitative data were used to explore and describe — amongst other obstacles — the socio-cultural barriers to physical activity amongst both the OG and YG of Black isiXhosa speaking women participating in the study.

After an outline of the methodology used in the qualitative study, which is the focus of this article, results are described, and the findings discussed.

METHODOLOGY

In-depth qualitative interviews were conducted with a group of 47 women (20 from the OG, mean age 39.9, SD=3.3 years; and 27 from the YG, mean age 19.8, SD=0.9 years), using an interview guide. The final number of interviews was determined by data saturation (data

adequacy, involving the collection of data until no new information was obtained) (Morse, 1994). Interviews were transcribed verbatim, and data were managed and analysed according to the steps described in Cresswell (2003). These steps engage a researcher in a systematic

process of categorizing and analysing textual data. Data verification was done according to Guba's model of trustworthiness (Krefting, 1991). An independent coder, experienced in qualitative methodology, verified the coding. A set of transcripts with a protocol on how to do an open analysis was given to the independent coder for analysis. After the analysis, the researcher and independent coder met for a consensus discussion on the identified themes, sub-themes and categories in the data.

RESULTS

The three sub-themes (as identified by the researcher and independent coder) relating to barriers to physical activity participation were: personal, environmental and socio-cultural factors. The socio-cultural factors, the focus of this paper, are determined by the norms and values acceptable to the community. The professional women in the present study formed a unique target group, sharing a similar demographic profile in terms of gender, race/ethnicity, socio-economic status and education. Their shared cultural heritage, as Black isiXhosa-speaking women living in an urban environment, revealed unique barriers to participation in physical activity in relation to their way of life, their sense of themselves as people, and their sense of themselves as women (Coakley, 2007).

The socio-cultural barriers included a lack of social support, exercise —not being a part of African culture, traditional gender roles, dress code, exercise being associated with the young, exercise associated with undesirable weight loss and with negative comments (–destructive talk) by the community.

The discussion below includes direct representative quotations from participant interviews. Quotations from participants are indented. The language is quoted verbatim and no effort has been made to formalize language usage in the participants' verbal responses. Where clarification is required, explanations are given in parenthesis.

Lack of social support

The majority of the participants (both YG and OG) reported very little social support for physical activity participation. They reported not receiving any support and encouragement for participation in physical activity from their family while growing up, –because I was raised like this, you know, and my family and extended family did not show interest in it! (OG).

Indeed, both the OG and YG were actively discouraged from exercising:

My parents did not allow me to go and play sport. (OG)

She [the grandmother] said, –Where do you get such ideas, that's for White people. (YG)

My mom doesn't want me to exercise 'cause she likes my body, she wants me to be fat. (YG)

Friends and peers were not involved in any form of exercise:

I don't have friends that like to exercise. (OG)

[N]obody around I know is doing it, so I'm not doing it also. (YG)

“Not in my culture”

Many participants in the study grew up in communities where exercise, particularly for women, was not seen as part of their Black culture, and therefore not seen as important, or encouraged. It was not common to see women exercising: –it has never been a part of their lives at all (OG).

In our culture the women are always at home, you never see the woman in our Black townships taking a walk or doing something. (OG)

Many of the YG concurred with the OG that exercise was not seen as an important part of their Black culture. The quotes below describe this perception in different ways:

It's not in our culture ... I've been living without it for such a long time so why should I start now?

They'll tell you, hey, in the olden days we were healthy without exercising.

If you do your duties at home then you're fit, they'll tell you.

Black women aren't meant to exercise, it's for White people.

Normally jogging and eating healthy diet or doing sports, it's not in our culture.

In addition, no intrinsic value was attached to the games and sport children played. Children were encouraged to go and play outside but not for any educational, recreational or developmental needs, but –to keep the house clean.

I would say our culture may have played a part because it is not something that was encouraged. We used to play a lot outside when we were children. We like to play ball, and anything that was outside. But we were pushed towards the outside to play rather than inside. They would say go outside because you are making the house dirty. They did not think of it as us exercising, it was just trying to keep the house clean, and if you want to play, go outside.

Traditional roles of males and females

From a young age, Xhosa boys and girls have traditionally been socialized into particular roles. Girls were required to do domestic chores while boys in this urban setting could often play. Responsibilities to home and family were central in the lives of girls growing up, leading to the natural transition of assuming this role in adulthood:

But the reality of this matter is in our Black culture. If you are Black and you are a girl there are more responsibilities that are expected of you. The boy can just play. No one expects him to come back and wash the dishes or sweep the floor or dust the room. It

is like a boy is exempted from it. There is more responsibility that is given to girls

than boys. We girls we learn from a very early age that there are things to be taken care of. The treatment of boys and girls is totally different. (OG)

It is the culture that has an impact, in our culture the boys do nothing and just play and the girls have to clean and do everything, so now mothers say your place is here at home. (OG)

I think we have come to expect that girls don't exercise because guys play soccer ... But with us the sport is cooking, cleaning and doing the washing. (YG)

They [boys] play soccer and they run around...

[And the girls?]

Working, what else, cooking, preparing lunch, supper and breakfast, ... there's no exercising thing. (YG)

Dress code

There is a perception that it is not acceptable for Black women to wear revealing sport attire such as tights or running shorts. Participants would not feel comfortable wearing revealing sport attire when exercising in the township. It was fine for them to wear such clothes while exercising in the suburbs and at suburban gyms, away from the criticism of the Black community:

You must make sure when you run there you don't wear tights. Like where I am staying in Bridgemead [a historically White suburb] you can run with tights on but not in KwaZakhele [a historically Black township] because people will call you, shout at you. It is because women shouldn't be dressed like that. (OG)

Yes, they can in a way, when I am going to a gym I will have to wear the tights and things and the community will say that why is an old female wearing such things so to them, they will say it's not acceptable. (OG)

They see people when they jog they just put on shorts, so maybe they think you are not wearing enough clothes. (YG)

From interviews with the participants the researcher gleaned that it was more acceptable for younger women to be seen wearing shorts or tights while exercising, but once the women were married, it was not acceptable.

Exercise associated with the young

Exercise was seen to be associated with what children and young people did, and it was not acceptable for women (particularly married women) to be seen exercising. Women were discouraged by the –destructive talk of community members:

When someone is exercising they will perceive that person as someone trying to pretend to be younger than their age. Somebody who thinks she is young when they are old. (OG)

In my area where I am I would not find women exercising. I would see the school going children, the teenagers, but not women. (OG)

It is something for children or young ladies or young children. (YG)

Exercise associated with undesirable weight loss

Participants may have been aware of the health and other benefits of exercise, but only considered exercising when they perceived that they were overweight and therefore needed to lose weight:

The people who are concerned about exercise are the people who have heavy weights, and who are overweight. Exercise is associated with losing weight. (OG)

Most of the time we join or want to exercise because of weight. I don't remember anybody who I've come across talking about exercising. Only when they want to lose weight then they want to exercise. (OG)

Many of the YG related exercise to weight loss so, if body weight were not an issue, there was no need to exercise:

I don't think I need to. I'm thin.

Ja, it is important for some people, for fat people.

The YG also reported being discouraged from losing weight by older family members because —African ladies are not skinny and —Black girls are supposed to be nice and heavy.

A serious implication with regard to weight loss is its association with HIV and Aids. There is still a stigma surrounding HIV/Aids in South Africa and loss of weight through exercise might be conceived to be associated with HIV/Aids:

Where I live it would be so strange to wake up in the morning and go jogging, people will look at you strangely, and then if you all of a sudden lose weight, people would say things like you're sick or HIV positive or things like that. So sometimes you're scared of losing weight because of what people might say about you, so the society also play a very big role. (YG)

Negative comments (“destructive talk”) by people in the community

The OG reported on the —destructive talk by the community when older women are seen exercising. This —destructive talk in a community-centred culture is extremely isolating:

If an older fat person in our culture starts doing exercises or going to gym ... there is a Xhosa word —flayi that they would use. There are women in our communities would say so and so wants to be young and starts destructive talk.

The YG reported being accused of —wanting to be White. They would be laughed at, called mad and crazy and ridiculed, and be accused of being HIV positive:

You know Black people. People there don't like exercising. If they see you jogging, they'll say ah, this one wants to be White or she doesn't have anything to do or something like that.

No, it will be very awkward to see a girl exercising. They will like laugh at you and say you're wasting time.

No, they would think I am mad. They would think I am crazy.

DISCUSSION

The above results highlight the many barriers, both real and perceived, to physical activity participation among the Black urban South African women in this study. Socio-cultural barriers are considered to be problematic because they are not visible (Henderson, 1993). These factors are determined by the norms and values acceptable to the community, and may not be quantitatively measurable, but still have far-reaching influences on women's behaviour.

Regardless of how firmly people may believe that physical activity is beneficial to their health, barriers – whether real or perceived – represent potential obstructions to the adoption and maintenance of participation in physical activity (Booth *et al.*, 1997). The participants in the present study recognized the importance of exercise to physical and mental well-being, stress reduction, and maintaining a moderate body weight (Walter, 2008). However, the majority of them as revealed in the larger study (100% of the OG, n=111) and 95% of the YG, n=69) did not meet the recommendation of the Centre of Disease Control (CDC) and the American College of Sports Medicine (ACSM) of engaging in at least 30 minutes of moderate-intensity physical activity on most, and preferably all, days of the week (CDC and ACSM, 1995).

A few misconceptions about exercise were evident from the socio-cultural barriers: you only need to exercise if you want to or need to lose weight; exercise is only important or necessary for fat people and there is no need for thin people to exercise. Even though the participants in the study recognized the importance of exercise in enhancing health and well-being, they only considered exercising when they needed to lose weight. To add to the misconception, some participants were discouraged from exercising and losing weight by older family members, because —African ladies are not skinnyl and —Black girls are supposed to be nice and heavyl.

Overweight and obesity is a complex issue in Black women, with deep socio-cultural connotations. When shown a range of body types, from very thin to very obese, black women chose a more ample body type as their ideal, while White women thought a leaner physique was more desirable (Mciza, 2006).

A serious implication with regard to weight loss is its association with HIV/Aids. According to Van der Merwe (2006) of the International Association for the Study of Obesity, HIV/Aids has created the fear among Black women that if they were seen to be losing weight it would be assumed they have the disease. It has been argued that in the Black community being overweight symbolises beauty, affluence, good health and a negative HIV status (Jennings,

2004). All these different perceptions, associations and implications of weight loss are bound

to have a detrimental effect on physical activity participation.

Another misconception is that older people in the community have questioned the need to exercise when –in the olden days we were healthy without exercising or –if you do your duties at home, then you’re fit. But life is not the same as it was in the past. Urban lives have become increasingly sedentary through automation and technological advancement, as well as through passive forms of recreation, like watching television and listening to music (Statistics South Africa, 2001). Life in the townships is also sedentary with the provision of electricity and the subsequent use of appliances in the home, buses and taxis for transportation, and shops and other amenities in close proximity to home.

The stereotypical roles of males and females are still deeply entrenched in Black culture. Girls are socialized into the traditional domestic roles of cleaning the house, washing dishes and doing the cooking. Responsibility to home and family were central to the lives of girls while growing up, which leads to the natural transition of assuming this role into adulthood. What came across strongly in the interviews was that women themselves are perpetuating this gender stereotyping: –Mothers say your place is here at home. It is also the women who gossip about other women and start the –destructive talk if they see other women exercising. Black women need to liberate themselves from domestic restrictions as well as from their self-inflicted cultural and gender stereotyping. Women need to be supportive of other women who challenge social norms and customs that are detrimental to their health and well-being. Education, coupled with the empowerment of women, is needed before the participation of women in physical activity can become acceptable behaviour.

In relation to sport and exercise, the participants had been surrounded by a negative socio-cultural environment throughout their lives. There was no support from family and friends. At most apartheid era schools for Blacks, there had been limited opportunities for participation in sport; learners were not encouraged and motivated to participate in sport: –I was studying in Black schools ... they don’t care there ... whether you like sport or not, it is the same thing. Community members would also subject women to much criticism if they exercised. Studies in sport and socialization indicate that people are socialized into sport, and that the most important –agents of socialization (those who exert influence) are described as the –significant others and include parents, siblings, teachers, peers and role models (Moore *et al.*, 1991; Payne *et al.*, 2002; Coakley, 2007). Research has indicated that social support is important for increasing physical activity participation among women in general (Treiber *et al.*, 1991), and in particular for sedentary women of various racial/ethnic backgrounds (Eyler *et al.*, 1999; Wilcox *et al.*, 2000; Sharma *et al.*, 2005).

CONCLUSIONS AND RECOMMENDATIONS

The advent of democracy in South Africa has brought about legislative and policy change which has allowed women more opportunities and choices. However, choices regarding physical activity are influenced detrimentally by the conservative socio-cultural barriers surrounding Black women’s everyday lives.

The shared cultural heritage of the participants revealed unique barriers in relation to their sense of themselves as isiXhosa women. This has highlighted the need for research targeting specific groups based on specific demographic profiles, which in turn would lead to more

meaningful targeted interventions for the promotion of physical activity. This has also been a recommendation by studies conducted on a multi-ethnic sample of adolescents (Sallis *et al.*, 1996), women from diverse racial/ethnic groups (Eyler *et al.*, 2003) and African American women (Sanderson *et al.*, 2003). Efforts to promote participation in physical activity are likely to be most effective when they address the needs and interests of a particular target group (Booth *et al.*, 1997).

The socio-cultural impediments to physical activity participation among Black women are also deep-rooted and debilitating. It would require a great deal of determination, self-belief and motivation to go against these cultural norms, values and expectations. This highlights the importance and necessity for the further empowerment of women in South Africa to rally against the stereotypical behavioural expectations which are detrimental to their participation in physical activity and hence to their physical health and well-being. However, women also need to do some introspection and self-examination, because much stereotyping and prejudices are inflicted by women on women. Interventions should target the promotion of physical activity among Black women and should strategize around the social barriers. More positively, interventions can include existing support bases for women, such as the church and women's groups in Black townships that were shown in this study to be centres of community initiatives.

The barriers also highlight the important role that Physical Education in our school curriculum should play in educating people on the importance of leading an active lifestyle and in preparing them for life-time physical activity which learners could carry over into adulthood. In addition, national initiatives and campaigns can speed up –sport participation and exercise as accepted and even normative behaviourl (Scheerder *et al.*, 2005:140) for girls and women. These campaigns should educate people about the simple facts surrounding physical activity, while also targeting misconceptions and negative cultural perceptions towards women's participation in sport and exercise.

The many complexities surrounding physical activity participation revealed by the qualitative measures in the study go some way towards explaining the low levels of physical activity participation indicated by the quantitative measures. In terms of response to physical activity participation, the community examined is far from seeing women's participation as the norm. In order for women to reap the health and psycho-social benefits of increased physical activity participation in the new dispensation, a multi-faceted approach for the promotion of physical activity among Black women in South Africa is needed.

Although these findings cannot be generalized to the larger isiXhosa speaking or Black population, they do provide valuable insight into real barriers to participation in physical activity facing Black women in South African urban contexts. In order to enhance the success rate of intervention programmes, these findings merit further investigation into how typical these barriers might be in an urban South African context, the magnitude of the barriers and ways in which they might be overcome.

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THE PHYSICAL EDUCATION LESSON IN TURKISH PRIMARY SCHOOLS: AFFECTIVE ENTRY CHARACTERISTICS AND GENDER

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ABSTRACT

In the study students' affective entry characteristics related to Physical Education lessons were examined based on three dimensions: interest towards the lesson, level of motivation in the lesson and educational gains. The study further aimed to investigate how these three dimensions were affected by the gender factor. Data were collected by means of a questionnaire developed by Yoncalik in 2006. A total of 1089 seventh grade pupils (530 girls; 559 boys) from 22 state primary schools in Konya and Ankara city centres participated in the study. The Statistical Package for Social Sciences 11.0 (SPSS) was used for the statistical analysis of the data. The t-test for independent groups was utilised to compare the participants' responses in terms of gender. The level of significance was set at $p < 0.05$. The research findings revealed that boys were more interested, more motivated and had more educational gains than girls in the Physical Education lesson.

Key words: Interest; Motivation; Physical Education; Primary school education.

INTRODUCTION

Students' affective entry characteristics towards school lessons may be considered as a complex intersection of interests, motivation, anxiety, attitudes and self-perceptions (Bloom, 1998:87). Among these characteristics, motivation is one of the strongest sources of power determining the direction, degree and consistency of student behaviours (Fidan, 1996:129). It may be argued that there are two sources of motivation; namely external and internal motivation. External motivation involves working for the purpose of appreciation and reward from an external source. As for internal motivation, it involves working hard for the purpose of gaining personal satisfaction that the person derives from personal development. For example, since students take an interest in practicing a skill with a partner, this motivates students internally (Pettifor, 1999:64-65).

Like motivation, interest is one of the affective entry characteristics and it is closely related to motivation, for it is a main factor that increases or decreases motivation that influences students' participation and success in learning activities (Hidi & Harackiewicz, 2000; Chen, 2001; Chen & Ennis, 2004; Subramaniam, 2009). Interest is an outcome of an individual-environment interaction and has two widely acknowledged dimensions (Krapp, 1992; Hidi & Renninger, 2006). The first is individual interest, which is acquired through a long process during personal development and forms a part of the personality. The second is the situational interest, which emerges owing to the fact that the situation is interesting. Situational interest has a special place in educational activities. It is thought that the more interesting the topic is

in terms of both content and techniques, the more the students' educational interest will increase. Despite the fact that it is difficult to differentiate situational and personal interest from each other in a clear-cut style, situational interest is considered to be a prerequisite for student success and knowledge acquisition (Krapp, 1992). Interest towards school and lessons is one of the significant factors affecting a student's success and knowledge acquisition (Krapp, 1992).

Limited research exists on interest towards Physical Education (PE). In one study, Lee *et al.* (1999) stated that individual interest towards physical activity is closely connected to gender. Similarly, Clifton and Gill (1994) suggested that boys and girls develop distinct individual interest towards physical activities from each other owing to social influences. For instance, boys show interest towards team sport at an early age but girls are more interested in rhythmic activities (Lee *et al.*, 1999). It can be concluded from these findings that boys and girls begin to show preferences for different physical activities at an early age and their preferences are affected by social influences. Besides these studies, Azzarito and Solmon (2009) emphasise that students are still suffering from the pressure concerning gender boundaries despite a great number of studies having been conducted in PE for more than 20 years.

Lee *et al.* (1999) found that the social acceptance level of an activity is closely related to students' interests in an activity. In their study, they concluded that boys are more interested in PE than girls since they are more interested in sport than girls. Similarly, Papacharisis and Goudas (2003) found that gender is a significant factor affecting internal motivation, which determines students' participation in physical activity. In addition to these studies, Gao (2009) investigated motivational levels in the lesson in terms of class and gender differences. He stated that boys' expectations, beliefs, and interest scores in PE lessons were higher than that of girls'. Furthermore, Oliver *et al.* (2009) pointed out that traditional PE lessons restrict girls' participation. In his study, fifth grade girls' self-identified barriers to physical activity in PE lessons are examined. These girls explained that sweating; messing up their hair and nails, as well as their „nice“ clothes irritated them and hindered their active participation in PE lessons.

Moreover, Lentillon *et al.* (2006) suggested that school causes gender inequality due to the nature of courses like PE. In fact, boys and girls get the awards in PE in a totally different amount and manner: The marks girls are awarded are always lower than that of boys; and teachers' interferences are more frequently in favour of boys than girls. To overcome these gender boundaries in PE lessons at schools, Azzarito and Katzew (2010) stressed the importance of the necessity to improve the PE curriculum by which gender equality is taken into consideration. With reference to the results obtained from other studies, Şişko and Demirhan (2002) mentioned that social factors such as religion and gender roles taught to them by society may cause girls to participate in PE activities to a lesser degree than boys. This may be the reason why the girls' mean score to be lower than that of boys. Hamzeh (2007) observed that Muslim girls' participation in physical activities was limited and these students seemed to be disinterested, as well as unenthusiastic. In addition he stated that the relationship between gender and religion is a factor that regulates and affects the clothes of the girls, as well as their relationships with boys in the public sphere. To manage such social obstacles, Oliver and Hamzeh (2010) stressed that the support of school administrators and

PE teachers plays a significant role in girls' participation in physical activities at school. They also stated that PE instructors actually determine the factors that cause girls to be less active in PE lessons.

Among the variables influencing a student's affective entry characteristics towards PE lessons, alternatives are available or can be created for the teaching method, PE teacher, class schedule and sport area. However, the same cannot be argued for gender, as the students'

gender is a constant variable. Since one cannot make any changes in the gender variable, it may be argued that PE lessons and all the other variables should be organised according to the gender variable. Considering this, research into how gender affects students' affective entry characteristics towards PE lessons is significant. In this study, students' affective entry characteristics towards PE lessons are examined in three sub-dimensions. These sub-dimensions are: (1) interests towards the lesson; (2) level of motivation in the lesson upon which the teacher, teaching method, teaching environment and lesson content are effective; and (3) gains from the PE lesson. The aim of the research is to document how these three dimensions are affected by the gender variable.

METHODOLOGY

Questionnaire

A questionnaire developed by Yoncalık (2006) and used in Yoncalık *et al.*, (2009) and Yoncalık *et al.*, (2010) was adopted for this research.

In the first phase of data collection, 28 students of similar socio-economic status, studying in the sixth grade in a primary school, which was not in the scope of the study, were required to write an essay about their feelings, ideas and attitudes towards PE lessons. Content analysis was applied to the essays collected. Positive and negative items were selected to be included in the questionnaire.

Based on data collected from a related local and foreign literature review, new items were selected to be included in the questionnaire (Matthews, 1978; Demirhan & Altay, 2001; Özer & Aktop, 2003). An items pool was generated by adding items gathered from the literature review to the items selected out of the student essays. All the written items were presented to five specialists, three of whom have doctoral degrees in PE and two who have doctoral degrees in psychological counselling and guidance. After these specialists checked all the items, the 60-item questionnaire was finalised. Half of these 60 items was positive and the other 30 items were negative. A 5-point Likert-type scale was used in the questionnaire and applied as follows: „I completely agree“ = 5; „I agree“ = 4; „I am undecided“ = 3; „I do not agree“ = 2; „I completely disagree“ = 1. Later, the points of the negative items were „recoded“: 5's as 1, 4's as 2, 2's as 4, 1's as 5.

In the first application, the 60 items were put into a random order. This application was administered in three primary schools in Kırıkkale city centre to 310 students in the spring term of the 2004 and 2005 school years. One hundred and forty (140) of the students were girls and 160 were boys, while 10 did not mention their gender. Approximately 25-30 minutes was required to complete the questionnaire.

Data obtained were transferred to the Statistical Package for Social Sciences 11.0 (SPSS). Descriptive factor analysis was adopted to explain the relationship between variables and the emerging factors; however, before performing the factor analysis in order to obtain more reliable results, the internal consistency (Cronbach's alpha) coefficient was calculated. At this stage, the items whose total item correlation was lower than 0.30 and those which had minus value were excluded from the questionnaire. This application was repeated three times and continued until no item with a total item correlation lower than 0.30 was left. As a result of

applications, 21 items were accepted to remain in the questionnaire.

Factor analysis was applied to the remaining 21 items and a five-factor structure emerged. The common factor variance of this structure was found to be at the level of 54.676%. In order to interpret the emerging factors to maintain conceptual meaningfulness, factor rotation was used and orthogonal (Varimax) rotation was applied. A three-factor structure common factor variance of 43.991% was found.

As a result of the three-factor rotation operation, the first factor contained 6 items, the second factor had 7 and the third factor had 8 items. When the items in the first factor were examined, the items in this factor such as “If possible, I do not attend PE classes” and “I look forward to the days on which we have PE classes” were decided to be named as the *Interest* dimension owing to the fact that these items mainly show the students’ moods and feelings towards the PE lessons. The items in the second factor such as “I trust myself more through PE classes” and “PE class makes me love sports” were labelled as *Gain* in terms of lesson aims and student development, as these items indicate what the students learn and gain from the PE lessons. As for the items in the third factor such as “Most of the things I do in PE class are a waste of time” and “I like the way course subjects are taught to us in the classes”, were loaded under the label *Motivation* considering the student’s active participation in the lesson. Moreover, these items are related to the students’ attitudes towards the PE lessons and their willingness to take part in the activities in the lessons at schools.

The Cronbach’s Alpha reliability coefficient of the scale, which consisted of 21 items and three dimensions, was 0.86. The internal consistency of the 6 items in *Interest* dimension was 0.81. The Cronbach’s Alpha internal reliability coefficient of the 8 items in the *Motivation* dimension was 0.72 and the 7 items in the *Gain* dimension had an internal consistency coefficient of 0.75. The questionnaire consisted of two sections. The first included demographic information (gender, race, age).

Sample

One thousand and eighty nine (1 089), 7th grade pupils (boys, n=559; girls, n=530; 14-15 years old) studying in 22 state primary schools in Ankara (n=14) and Konya (n=8) city centres participated in the study during the fall semester of the 2009 and 2010 school years.

Data analysis

The SPSS 11.0 was used for statistical analysis of the data. The t-test for independent groups was applied to compare the participants’ responses in terms of their gender. The level of significance accepted was $p < 0.05$.

FINDINGS

The mean values of the responses given to each item by the pupils are presented in Table 1.

TABLE 1: MEAN VALUES OF STUDENT RESPONSES TO EACH ITEM

STATEMENTS	Mean	
	Girls (n=530)	Boys (n=559)

Interest		
If possible, I do not attend PE classes.	1.93	1.79
I do not have any expectations from the PE course.	2.47	2.00
I can't think of any schools in which PE classes are not taught.	3.81	4.00
I look forward to the days on which we have PE classes.	3.55	3.95
I want to have more PE classes	3.70	4.13
I feel sad on the days we have PE classes at school.	1.74	1.67
Motivation		
I learn something new in each PE class.	3.01	3.40
It makes me bored to repeat the movements during the classes.	2.94	3.03
Most of the things I do in PE class are a waste of time.	2.10	2.01
In PE classes, I feel as if time never passed.	1.74	1.57
PE is a class that enables me to show my abilities.	3.42	3.92
I like the way course subjects are taught to us in the classes.	3.37	3.66
I do not learn the course subjects well.	2.01	1.97
I forget what we are taught in PE classes in a short time.	2.06	1.94
Gain		
PE course teaches me to respect my friends.	3.01	3.41
I understand the importance of working through helping each other in PE classes.	3.39	3.58
PE classes help me understand what I can achieve on my own.	3.44	3.73
I trust myself more through PE classes.	3.44	3.79
I understand the importance of obeying rules in PE classes.	3.57	3.88
PE class makes me love sports.	4.02	4.24
I am in a better harmony in PE classes.	3.81	4.05

In Table 1 it is evident that the mean values of the girls were higher than the boys in negative statements, whereas the mean values of the boys were higher in positive statements. It was found that the mean of the responses to "PE class makes me love sports" proved to be high for both genders (boys=4.24; girls=4.02).

Among the items comprising the *Interest* factor, the statements where differences between genders were clearly apparent included: "I do not have any expectations from the PE course"; "I can't think of any schools in which PE classes are not taught"; "I look forward to the days on which we have PE classes"; and "I want to have more PE classes".

Regarding the items in the *Motivation* factor where differences between genders were obvious included: "I learn something new in each PE class"; "In PE classes, I feel as if time never passed"; "PE is a class that enables me to show my abilities"; and "I like the way course subjects are taught to us in the classes".

In the *Gain* factor, all the items, there were clear differences between genders in favour of the boys, relating to all the items, namely: "PE course teaches me to respect my friends"; "I understand the importance of working through helping each other in PE classes"; "PE classes help me understand what I can achieve on my own"; "I trust myself more through PE classes"; "I understand the importance of obeying rules in PE classes"; "PE class makes me love sports"; and "I am in a better harmony in PE classes".

When considering the mean scores of the *Interest* dimension, there were significant differences between boys and girls for four of the six items ($p=0.00$ to $p=0.02$). It can be

concluded from the mean scores for the item, “I do not have any expectations from PE course”, that girls (mean=2.47) were indecisive while the boys on average did not agree with the statement (mean=2.00). A significant difference ($p=0.00$) was found between the mean scores of the girls (3.55) and the boys (3.95) for the item, “I look forward to the days on which we have PE classes”. It can be said that boys were more enthusiastic than the girls considering their interest level towards PE lessons. Similarly, from the mean scores for the item, “I can’t think of any schools in which PE classes are not taught”, the difference between the mean scores of the boys and the girls was significant ($p=0.02$) regarding interest level towards PE (girls=3.70; boys=4.13).

Considering the *Motivation* dimension, boys and girls had similar mean scores for some items such as “It makes me bored to repeat the movements during the classes”, “Most of the things I do in PE class are a waste of time”, “I do not learn the course subjects well” and “I forget what we are taught in PE classes in a short time”. When compared to the girls, the boys believed they found opportunities to show their abilities in a more definite way (girls=3.42; boys=3.92). Furthermore, the boys were more positive about the way courses were taught than the girls (girls=3.37; boys=3.66). Similarly, from the mean scores for the item (girls=3.01; boys=3.40), “I learn something new in each PE class”, the difference was also significant ($p=0.00$).

In the *Gain* dimension boys have higher mean scores in all the items than the girls. From these scores, it can be concluded that the boys gain more than the girls.

TABLE 2: t-TEST ANALYSIS ON SCALE DIMENSIONS OF THE INDEPENDENT GROUPS

DIMENSIONS	MEANS		t-VALUE	p
	Girls (n=530)	Boys (n=559)		
Interest	3.82	4.09	-5.166	0.00
Motivation	3.61	3.80	-4.088	0.00
Gain	3.53	3.81	-4.838	0.00
Attitude	2.98	3.13	-5.492	0.00

$p < 0.01$

The results of Table 2 indicate that the lowest of the three dimensions for the girls was *Gain* according to the mean scores (3.53). The mean score of the girls in the *Motivation* dimension (3.61) was higher than the *Gain* dimension. For the girls, the highest mean scores emerged in the *Interest* dimension (3.82). In other words, although interest towards PE lessons in the case of the girls was quite good, their motivation level was not as high as their interest level.

Like the girls, the *Interest* dimension of the boys was the highest scored dimension. The boys’ interest towards PE lessons was at quite high levels. The average mean score of the boys for the *Motivation* dimension was 4.09. Similarly, the motivation level for both girls and boys was low when compared to their interest level in PE lessons. In addition, their *Motivation* and *Gain* levels were similarly above average (3.80; 3.81) respectively.

Regardless of the dimensions, in the analysis of all the responses of the pupils to the items in the questionnaire, it can be noted that the boys had a more positive attitude towards PE lessons than the girls.

DISCUSSION

The findings of this research indicated that boys were more interested in and motivated by PE lessons. They also experienced more gains than girls. In comparison with girls, boys displayed a more positive attitude towards PE lessons. These findings seem to be in line with previous studies in Turkey (Şişko & Demirhan, 2002; Hünük & Demirhan, 2003; Koca & Aşçı, 2004; Koca & Demirhan, 2004; Balyan *et al.*, 2005; Koca *et al.*, 2005; Koca & Aşçı, 2006; Taşgın & Tekin, 2009). A possible reason for these results is that in Turkey, both women and men PE teachers interacted with boys more frequently and that co-education in PE lessons did not provide equal opportunity for girls (Koca, 2009).

In studies conducted in other countries, similar results were found (Couturier *et al.*, 2007; Silva *et al.*, 2008; Constantinou *et al.*, 2009; Liang *et al.*, 2010). For example, Constantinou *et al.* (2009) stated that boys' behaviours affect girls' participation in PE lessons and their attitudes towards the PE course is negative. In the researchers' opinion, girls' perception towards the factors that form a safe environment and safe sport is an important factor. Silva *et al.* (2008) suggested that boys and girls perceive gender relationships differently from each other. Half of the girls in their study complained about boys' behaviours and attitudes that irritated them, embarrassed them and finally caused them not to participate in the activities. These girls also stated that the relationships between boys and girls in the PE lessons were not good. In the study conducted with over 5000 students, Couturier *et al.* (2007) believes that the reason why girls showed less interest and participation in the lessons was that the PE lesson curriculum is traditionally filled with common team and individual sports, whereas girls preferred cooperative, less competitive activities like fitness and dance.

Similarly, in other studies it was stated that girls usually preferred sport and activities such as dance, gymnastics, yoga, modified games and volleyball unlike boys who mostly preferred sport like football, ice hockey, martial arts and motor-cross (Klomsten *et al.*, 2005; Azzarito & Solmon, 2009). This refers both to conformity to gendered views of activity, such as defining football and rugby as inappropriate for girls, and to culturally specific views, such as perceptions of mixed gender physical activity as inappropriate for adolescent girls. The

exclusion of traditionally „boy“ activities, such as football and cricket, from the girls' PE curriculum actually disadvantaged these girls more than those who do have access to a wider range of out-of-school activity options (Williams & Bedward, 2001). Liang *et al.* (2010) determined that boys were more active than girls in the boy-dominant activities (football) in the PE lessons. In addition to this, they found that both boys and girls are equally active in the gender-free activities (fitness). Moreover, they observed that girls were more active in the „feminine“ activities like aerobics and dance. The same could be argued in the case of girls in Turkey.

In the study of Yıldırım *et al.* (1996) among secondary school students, it was concluded that the expectations of girls centred on social, mental, ethical, aesthetic, rhythmic and

coordinative features. Boys, who, in contrast, had overriding concerns for the need for competition, rivalry and victory, regarded these values as the least important. Hannon (2010) stressed what students will undergo, and that the grading system in the lessons affect students' single-gendered or co-education preferences in the PE lessons.

Couturier *et al.* (2007) state that the environment and social obstacles are other significant factors causing girls to be unwilling to participate in the activities in PE lessons. They found that girls were more affected by environmental factors such as showering, messing up their hair, being sweaty, bringing a sport outfit to school and changing it in front of others. They emphasised that this decreased girls' interest and participation in PE lessons. For this reason, though unwillingly, they argued that the PE lesson has become more advantageous for boys. Bibik *et al.* (2007) stress the importance of comfort in dressing rooms in affecting the satisfaction level in PE lesson. Lodewyk *et al.* (2009) argue that in PE settings, body image may be an important motivational consideration. Barr-Anderson *et al.* (2008) also recommend helping girls feel more positive about their bodies in the PE environment to increase enjoyment. It could be argued that the PE lesson in Turkish primary schools is far behind the expected level in terms of equipment and other facilities. These environmental factors create more negative effects regarding girls in comparison with boys. It could be alleged that in Turkey, PE lessons work in favour of boys with regard to content (program) and facilities.

Considering all the results obtained, it is not logical to ask PE teachers to favour girls more than boys. In such a situation, PE lessons, which are more positive for boys at present, can become negative for both boys and girls. For an effective solution (only in primary schools), it is believed that PE lessons can be planned and designed separately for boys and girls rather than being co-educational. Designing a PE programme that is compatible with girls' needs and expectations can provide them with a more suitable PE learning environment in which they can be more active during PE lessons.

The results obtained from the study conducted by Hannon and Ratliffe (2007) support the fact that girls will be able to get much more opportunities and chances to participate in soccer, frisbee and football in single-gendered PE classes. The results show that in these classes, PE teacher's oral communication with the girls seems to be at a higher rate. The logical reason why single-gendered PE classes increase girls' participation is that in such classes there is no boy dominance during the activities in the lessons. Co-educational PE classes provide boys

with the opportunity to dominate girls in both frisbee and soccer, and restrict girls' participation.

In PE lessons, it may be useful to separate girls from the boys during participation in team sport. Girls and boys can start the lessons together and separated from each other just for the games. The philosophy behind this application is to provide both boys and girls in high schools with equal participation opportunities in PE lessons. Although single-gendered games include much more practice and teacher interaction, the co-educational type still has advantages. Especially, athletic and competitive girls with high talent can benefit from playing together with and against boys. However, such girls are in the minority.

Planning separate PE curricula for boys and girls is significant. This is not easy to realise but

not impossible. Preparing different PE content weekly and two distinct curricula for the same course cannot be easily realised in a short time. This puts extra responsibilities and workload on the shoulders of the PE teachers. The number of PE teachers working at schools should be doubled owing to the fact that the weekly lesson hours are at least doubled. An important point is that according to the interests of the girls and boys, there should be PE teachers who are experts in different sport areas.

Another significant issue is environmental factors related to the PE lessons at schools. The environmental factors such as the situation of the gymnasiums, equipment and school gardens should be designed in a more positive way because of the fact that PE lessons cannot be instructed in the same way for the boys and girls. In such a situation, girls and boys take the PE lessons separately from each other. In other words, when boys have a PE lesson, girls stay in class, and when girls have a PE lesson, boys stay in class. Therefore, what the students who stay in class are engaged with can be a question, which should be answered attentively and planned carefully while the others have a PE lesson in the school garden or gymnasium. For instance, for the students staying at class, the guidance and counselling unit of the school can give some lectures or establish some workshops with respect to their needs. Such an application makes the psychological counselling and guidance service more formal and as a result of this, the service becomes more beneficial to the students. Consequently, giving up the mixed education in the PE lessons requires an entirely new system besides its contribution to a more effective PE course for the students.

RECOMMENDATIONS

This study has some limitations with respect to the participants' ages and the questionnaire designed to collect data. The participants of this study were of the ages of 14 and 15 years. The author designed the questionnaire used to collect the related data. Therefore, by means of different and more comprehensive instruments, more data can be collected regarding the topic on participants from different ages and grade levels. On the other hand, international and intercultural studies can contribute well in the field. Future studies on mixed or single gender application of PE lessons in primary schools will provide more beneficial information on the topic. A variety of multidimensional studies investigating the kind of environment with regard to PE lessons desirable for girls may also prove to be beneficial.

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