CHAPTER SIX

DISCUSSION AND CONCLUSION

6.1. Introduction

This chapter provides the discussion and conclusion for the study, outlines the limitations, describes ongoing research and suggests recommendations for future research.

6.2. Discussion

6.2.1. Psychological skills training program

Significant between group findings were not obtained with regard to experimental and control group measures probably due to small sample size, inadequate randomisation and extraneous variables such as other academic and sporting commitments. However, in general and with special reference to within group measures, the PST program appeared to improve psychological skills at individual, group and community level, confirming previous literature on PST programs and demonstrating the efficacy of this program. The effectiveness of the sessions was generally evident with some level of quantitative and/or qualitative improvement on every one of the school experimental groups’ psychological skills. The school group intervention participants appeared to not only learn PST techniques, but also gain broader life skills, in a cascading transfer of training effect, which constitutes an important aspect
of youth PST programs. The program specifically improved some participants’ understanding of other peoples’ emotions, with objectivity and eagerness to learn observed. The review session was useful in re-discussing the PST techniques and confirming PST as a continuous learning process.

Feedback suggested school experimental group participants generally found the program to be an important component of sports training and an enjoyable, understandable, educational experience. Feedback suggested sessions were interesting, thought provoking, empowering and effective in teaching techniques in an overlapping manner. It was reported that sessions consisted of sufficient conceptual and practical components, which effectively communicated the various training techniques. Elite adult athlete’s case studies provided external validation, again confirming that the program was effective and suitably packaged in terms of theory, knowledge and application. Feedback suggested handouts were a useful and valuable part of the PST program.

The research demonstrated the transferability and adaptability of PST programs to different life, health and sporting contexts, for shorter or longer time periods when necessary. This finding was endorsed by participants’ recommendation that the program should be implemented in diverse settings with different sports to improve psychological skills, well-being and sporting performance.

It appears the chosen process and outcomes measures were effective in assessing the program in a holistic and specific manner. Although school group intervention time measurements were generally not well attended, the data collected was usable. The
school group intervention daily training schedules were important in examining the link between sport and psychological well-being. Quantitative data analysis was useful in providing a quantified approach and overall understanding, with the qualitative data analysis distinguishing and amplifying participant’s understandings and experiences.

Constructive useful feedback from school group intervention participants suggested handouts could have been written in a more simplistic fashion and that the program could have been longer with more individual and group sessions.

6.2.2. Impact of PST program on psychological skills

The outcome quantitative results and qualitative meaning of psychological skills for the experimental group appeared to show more positive change and was more holistic at post-testing, in comparison with the control group. Psychological skills are a holistic concept, with diversified understanding an important aspect of PST (Wann & Church, 1998; Weinberg & Gould, 2007).

The experimental group’s before and after quantitative process evaluation, which displayed general and significant improvements; attests to the value of PST programs (MacDougall et al., 2001). The development of each psychological skill was observed throughout the PST program as discussed below.

After the physiological arousal session, meaning was centred on the optimal level of arousal for peak performance and the personal experience of arousal and performance,

The ability to comprehend, report on past negative thinking, eagerness to rectify negative thinking and create positive thinking, suggested increasing maturity during the cognitive arousal session. Practice in Meichenbaum’s (1985) thought stopping and positive self-talk techniques were actualised in the improvement in cognitive arousal skill ability. After the session, focus was placed on creating and maintaining a positive mindset; a key element in cognitive arousal control (Beck, 1976; Feltham, 1999).

Participants’ interest in using internal and external imagery combining subjective and objective understandings was noticeable. Comprehension of some essential principles underlying imagery was evident as theory was shifted into holistic practice. Realization of the importance of creating meaningful vivid images outlined by Lang (1977, 1979) and Nideffer (1985) was apparent in the participants’ improvement on the imagery quantitative assessment, with awareness of finding and rectify sporting mistakes evident on the post-session qualitative assessment.

The race lane provided a practical venue conducive for effective attention, concentration and directional learning, demonstrating Nideffer’s (1985) theory on directional focus. The participants’ skill in maintaining focus through distractions
was evident in general post-assessment improvement. This is an important part of focus maintenance (Harris & Harris, 1984; Weinberg & Gould, 2007).

After the self-confidence session, experience gain included maintaining optimal levels for peak performance. Despite small numbers through low attendance, results indicated a significant overall shift in quantitative and qualitative measures, which confirmed improved understanding and eagerness to participate, an attribute of optimum self-confidence.

At post-testing the participants’ understanding of goal setting included motivation. This is an important element when setting sporting objectives (Moran, 2004). While the quantitative entity and incremental learning perspectives did not appear to improve, understanding of internal and external locus of control was enhanced.

Community workshop intervention participants displayed a significant improvement in overall psychological skills after the hour and a half session, demonstrating the potential immediate effectiveness of PST programs. Furthermore, elite adult sportsperson case studies revealed an improvement in psychological skills.

Enhancement of psychological skills in participants at individual, group and community level is consistent with PST literature (Sanchez & Lesyk, 2001; Wann & Church, 1998; Weinberg & Gould, 2007). It confirmed the hypotheses that the PST program would improve the psychological skills in the school group and community workshop intervention, as well as with adult elite case study participants.
6.2.3. Psychological skills training and performance

Although sample size was small and no significant result was achieved, performance times of the experimental group improved in comparison to the control group. This was in the expected direction, in keeping with literature on PST and performance (Weinberg & Gould, 2007) as well as experts’ views on PST. Furthermore feedback suggested the PST program improved participants’ athletic ability and assisted them with other sport and exercise activities. As discussed, the same PST program can train sport at different competitive levels or be adapted and utilized in different sporting contexts upon requirement.

Results are similar to a recent study undertaken by Pieterse and Potgieter (2006), which observed the effect of a five session PST program, which comprised of arousal, imagery, concentration and goals setting, on the athletic performance of six 1500 metre youth athletes, as assessed on time measurements. Results indicated that after the PST program there was a significantly overall group effect, with significant individual performance improvements in four of the six athletes.

6.2.4. Impact of psychological skills on psychological well-being

The school experimental group’s psychological well-being appeared to improve in comparison to the control group. At post-test the experimental group’s responses were more diverse, holistic and concerned with psychological skills. This suggested that growth in meaningful experience had occurred during the PST program. The experimental group continued to maintain this growth as evident at follow-up
assessment. Case study data also suggested the PST program improved the meaning of psychological well-being for the adult elite participants.

Research has revealed that support groups improve psychological well-being (Bhana, 1998; Mthembu, 2001; Patel, 2003; Rappaport, 1985). While the support group environment formed would have contributed to the improvement in psychological well-being of the experimental group, the improvement in psychological well-being evident in adult elite case studies, suggests the PST program improved psychological well-being independent of any possible group effect.

6.2.5. Relationship between psychological skills and psychological well-being

In view of the fact that the scales were independently standardised with high alpha coefficients, as was expected, psychological well-being components on the one hand and psychological skill components on the other were significantly positively correlated. Quantitative results from the school group intervention correlational matrix suggested personal growth can be an imagined experience and purpose in life may involve mental preparation for expected and unexpected events. The literature review suggested goal setting is an important component in purpose in life. Motivation is an aspect of goal setting, with results suggesting motivation is an essential part of having a purpose in life. Qualitative findings from post-test experience of psychological well-being components, indicated positive relationships between autonomy and mental imagery, self-confidence as well as motivation, personal growth and physiological arousal, cognitive arousal, mental imagery as well as self-confidence, environmental mastery and physiological arousal, cognitive
arousal, mental imagery, attention as well as concentration, purpose in life and
attention, concentration, self-confidence, motivation as well as goal setting, positive
relations with others and physiological arousal, confidence as well as motivation, and
self-acceptance and physiological arousal, cognitive arousal, confidence as well as
motivation. Results therefore empirically validate that each psychological well-being
component is positively related to multiple psychological skill components and vice
versa.

At a conceptual level, experts suggested psychological skills are part of general life
skills, trainable for specific settings such as sport, usually associated with
performance outcomes rather than health. This takes us back to the introductory
chapter and notion that psychological skills are everyday techniques that can be
trained in various settings, which, in the context of sport, have been extensively
researched in relation to performance. If they are being defined in a health context
then the relationship might be concerned more with general well-being and
application of skills for health.

Experts proposed that some form of psychological well-being is required for
psychological skills to be effective. Psychological skills improve psychological well-
being and vice versa. It was suggested that PST techniques can improve psychological
skills and psychological well-being, with examples being breathing, thought stopping
and positive self-talk techniques. Lastly, as discussed in the interventions, experts
emphasised that coaches have a vital role to play in PST.
The question posed in the motivation as to whether psychological skills and psychological well-being are related, seems to have been answered. Above results suggest that psychological skills and psychological well-being are overlapping concepts with interrelated components. Both psychological skills and psychological well-being are required for life, sport, health and performance.

6.2.6. Sport psychology in South Africa

This research demonstrated the applicability of PST programs in South Africa. It revealed the value of implementing programs for youth. Participants expressed value and enjoyment in having had the opportunity to receive sport psychology and PST. Furthermore, the research confirmed the value of PST programs with elite and non-elite athletes for the improvement of psychological skills.

The program was useful as a community workshop intervention in health promotion. This suggests that psychological skills training can be combined with existing community interventions involving health, sport and exercise. The program established the importance of working with groups for the improvement of psychological skills, especially in South Africa, where wonderful opportunity exists to optimise and integrate diverse local knowledge perspectives, expertise and skills.

6.2.7. Support groups and empowerment

Throughout the school experimental group sessions, a supportive group environment was maintained. The sport coordinator helped in the collection of assessment data,
which appeared to further improve the supportive environment. An encouraging environment was also formed at the community workshop intervention resulting in diverse knowledge sharing.

The environment formed by school intervention and community workshop intervention was conducive for the general development of knowledge, sharing of ideas, with specific deeper understanding of human emotions experienced by some the school experimental group participants. This confirms literature by Bhana (1998), Patel (2003), Rappaport, (1985) and Mthembu, (2001) with regard to meaningful therapeutic interactions occurring in support groups.

6.3. Conclusion

Based on the discussion the following conclusions can be drawn. Firstly, the PST program appeared to be a valuable intervention at all levels for promotion of sport, health and psychological skills. It added to the undeveloped research on sport psychology in South Africa and the growth needs of the field as a whole.

The PST program appeared to be specifically associated with the improvement of psychological skills, health, sport and performance at youth level. From a performance perspective, with regard to local and international competition, youth athletes in South Africa need to receive sport psychology, PST programs and life skill training.
PST programs, which use a broader range of psychological skills than single PST interventions, are more likely to improve psychological well-being and transfer skills into life, health and sporting contexts. The importance of investigating this conceptual relationship was for local and international benefit. At a theoretical and conceptual level, the interventions and case studies suggested the relationship between psychological skills and psychological well-being is dependent on how and in what context the concepts are defined, and supported the notion that multiple causal and correlational relationships may exist between psychological well-being and psychological skills both in themselves and between their components. Essentially both concepts are psychological variables, each necessary for health and performance, with spirituality an essential component noted by experts and participants.

From an experiential perspective it has been a privilege and pleasure to be able to conduct this research and add to theoretical and practical knowledge. As evident, PST programs have great potential as a community intervention. Further research needs to be implemented on PST programs in order to refine their implementation and effectiveness.

6.4. Limitations of the study

The first limitation of the study was school sample size. Although sufficient schools were approached, it was unfortunate that only one school was able to commit to the study. Adaptations made to the design, provided more opportunity for diverse valuable knowledge and data to be collected. Although African, Indian, Coloured and White learners in the sample represented the multicultural South African context the
sample was biased in terms of its economically developed and urban school context. Therefore any generalizations inferred from the present study should be treated with caution.

Secondly, due to school participants partaking in examinations, sport and other extra curricular activities, it was difficult to coordinate times when participants could be present at every session. While sessions could have been organised on weekends, this would have been affected by interschool matches. Despite constraints most of the participants received comprehensive PST.

6.5. Recommendations

This study provides a foundation for future research and intervention in South Africa where programs need to be implemented to enhance health and sporting performance of adult athletes and for the growth and development of young sportspeople. More PST interventions should be promoted with parents, principals and sport coaches and implemented in schools to promote life, health, sport and psychological skill training. It is suggested that more in-depth, community PST programs with multiple outcome and process measures be implemented to further evaluate the effect of PST programs as a health intervention strategy. Non-exercising samples could be useful as control. At present research is continuing with sports such as rugby and cricket.