

## The Effect of Resilience Training for Hong Kong Junior Athletes

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### Objective

Based on Galli and Vealey (2008) model, a sport psychological resilience training program was designed and firstly implemented in a selected group of Hong Kong junior athletes. This study aims at evaluating the program effectiveness among junior athletes.

### Method

Participants, 69 in total, were Hong Kong national junior athletes from windsurfing, billiard, table tennis, squash and fencing. They were aged from 12 to 18 with at least two years elite training experience.

Participants were randomly put into (a) traditional mental skill group, (b) resilience group and (c) control group. Twenty-one participants in the resilience group undertook the sport psychological resilience training program. Twenty-seven in traditional mental skill groups undertook a series of training in sport psychological mental skills. Twenty-one in the control group did not receive any psychological training at all.

The Resilience Scale for Chinese Adolescents (RSCA), the Athletes' Resilience Questionnaire (ARQ), the Brief Resilience Scale (BRS) and the Mental Skill Questionnaire (MSQ) were conducted before and after the training. Pre- and post-findings were compared and analyzed to determine the trainings' effectiveness.

### Results

Findings about RSCA, ARQ and BRS are as follows:

- there are significant differences between pre- and post-total scores of all three questionnaires for resilience and mental skill training groups ( $P < .01^{**}$ ), but not for control group;
- referring to the sub-scales in RSCA and ARQ, there are significant differences between pre- and post- scores in Goal Planning ( $P < .05^*$ ), Emotion Control ( $P < .01^{**}$ ) and Positive Thinking ( $P < .05^*$ ), but not Help Seeking nor Family Support for resilience and mental skill training groups, whereas there is no significant difference at all for control group;
- the post- total scores in RSCA and ARQ of resilience group is significantly higher than that of control group ( $P < .05^*$ ), whereas that of mental skill training group is not significantly different from two other groups; the post- total scores of all three groups are significantly different from each other in BRS ( $P < .01^{**}$ );
- the improvement (i.e., post- score minus pre-score) measured by all three questionnaires of resilience groups is stronger than that of mental skill training group.

Findings about MSQ are as follows:

- post- total score and sub-scale scores are significantly higher than pre- scores for resilience groups ( $P < .01^{**}$ );
- post- total score and sub-scale scores are significantly higher than pre- scores for mental skill training groups ( $P < .01^{**}$ );
- there is no significant difference between resilience and mental skills training groups for their post- total score and sub-scale scores.

Table 1: Descriptive Statistics and Alpha Coefficients for Subscales of the RSCA

Group	Pre-Test			Post-Test		
	M	SD	$\alpha$	M	SD	$\alpha$
<b>RG</b>						
Goal Planning	3.43	.47	.86	3.93	.51	.86
Emotional Control	3.12	.65	.61	3.67	.63	.65
Positive Thinking	3.88	.87	.91	4.35	.83	.90
Family support	3.57	.66	.60	3.89	.69	.64
Help Seeking	3.36	.65	.78	3.78	.72	.77
<b>TMSG</b>						
Goal Planning	3.52	.70	.85	3.93	.64	.86
Emotional Control	2.90	.82	.60	3.34	.73	.61
Positive Thinking	3.82	.66	.90	4.08	.60	.90
Family support	3.71	.60	.63	3.85	.63	.61
Help Seeking	3.55	.71	.77	3.78	.71	.78
<b>CG</b>						
Goal Planning	3.61	.39	.86	3.60	.45	.70
Emotional Control	3.17	.37	.61	3.29	.30	.81
Positive Thinking	4.60	.75	.90	4.76	.80	.62
Family support	3.23	.43	.62	3.33	.49	.81
Help Seeking	3.15	.55	.78	3.21	.57	.73

Note: RG = Resilience Group; TMSG = Traditional Mental Skill Group; CG = Control Group.

Table 2: Descriptive Statistics and Alpha Coefficients for Subscales of the ARQ

Group	Pre-Test			Post-Test		
	M	SD	$\alpha$	M	SD	$\alpha$
<b>RG</b>						
Goal Planning	3.34	.56	.62	3.92	.60	.68
Emotional Control	3.22	.54	.60	3.95	.52	.80
Positive Thinking	3.17	.73	.63	3.69	.62	.72
Family support	3.88	.57	.65	3.92	.87	.79
Help Seeking	3.72	.74	.80	3.86	.86	.78
<b>TMSG</b>						
Goal Planning	3.47	.92	.60	3.74	.99	.93
Emotional Control	3.22	1.04	.84	3.72	.87	.72
Positive Thinking	3.11	.64	.62	3.45	.70	.74
Family support	3.89	.70	.80	3.91	.62	.78
Help Seeking	3.78	.73	.91	3.78	.85	.83
<b>CG</b>						
Goal Planning	3.52	.72	.95	3.53	.70	.95
Emotional Control	3.15	.78	.73	3.15	.78	.74
Positive Thinking	3.34	.73	.84	3.31	.72	.83
Family support	3.86	.81	.79	3.91	.75	.80
Help Seeking	3.60	.65	.74	3.45	.69	.70

Note: RG = Resilience Group; TMSG = Traditional Mental Skill Group; CG = Control Group.

### Conclusion

Data analysis revealed that resilience training program derived from Galli and Vealey (2008) model is statistically effective in improving and enhancing Hong Kong junior athletes' overall psychological resilience, although the improvement in sub-scales "Family Support" and "Help Seeking" are not obvious. Traditional mental skill training also showed the effect of improvement on athletes' resilience, but the improvement is less promising compared with those from resilience training program.

### Reference

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