

# Application of Stress Management in Secondary School 中學壓力處理課程

Cheung Siu Yin

Department of Physical Education,  
Hong Kong Baptist University, HONG KONG.

張小燕

香港浸會大學體育學系



## Abstract

The purpose of this paper is to introduce stress management program to secondary school students in Hong Kong. Stress management program was designed and was proposed to be included in secondary school physical education curriculum. The program consisted of lectures and relaxation training. The contents of the lectures are the followings: what is stress? sources of stress, stress and illness, intrapersonal and interpersonal interventions. The relaxation training program consisted of stretching exercises, deep abdominal breathing and progressive relaxation training. A trial teaching of the course was conducted for 22 Form 6 students at a secondary school. Examination and academic/school work are the major stressors for the students. Friends and classmates are their main support groups. Positive feedback were received from the physical education teacher and students on this stress management program.

## 摘要

這篇文章的主旨是介紹一個中學生處理壓力的課程。這課程是建議將處理壓力列入中學體育課程內容中，課程分理論及實習兩部份，理論課程內容包括：甚麼是壓力？壓力的來源，壓力與疾病，個人及人際間的壓力處理方法。實習課程內容包括：伸展運動、腹式呼吸、漸進鬆弛練習。這課程曾在一所中學的中六班進行試教，學生有廿二人，考試及學校功課是中六學生主要的壓力來源，朋友及同學是他們主要的支持者，體育老師及同學們對這處理壓力課程都給予正面的回應。

## Introduction

Stress is integral to our daily lives and our society (Mihaesco, 1983). McNerney (1974) stated that "it is impossible to go through life without stress, because stress is what prepares people to handle things that appear to threaten them" (p.2). Unfortunately, many people do not know how to handle stress, thus they are suffering from stress related diseases, and their performance is also affected by stress.

According to the Hong Kong Government Annual Report 1997, there were about 465,658 full time secondary school students in Hong Kong in 1996. These young people also faced many stress in their life. Lau (1995) reported that the sources of stress for secondary school students in Hong Kong were examinations, school work, pollution and inflation. Over 58% of the students reported that they would handle stress by themselves, while Lee (1995) pointed out that about 3.8% of the students expressed that they would commit suicide in very stressful situation. In

addition, the Samaritan Befrienders Hong Kong Annual Report (1996) stated that the number of suicide death for youngsters of age 10-19 was 37, and the Association has handled 439 cases to counsel individuals of 15-19 years old. The percentage of these cases was 18.3 and it was the second highest age group in 1996.

There is a need to introduce the concept of stress and stress management in school. Setterlind and Unestahl (1982) reported that in 1975 a grammar school in Sweden has introduced a six-week relaxation training in physical education classes in schools for the forth to sixth grades students. The general attitude of the students towards the program was extremely positive. Consequently, since 1979 the school board in Sweden has made relaxation training a part of physical education program in the new curriculum. In addition, Edwards and Hofmeier (1991) introduced stress management to elementary age and special population children. Lowenstein (1991) taught stress management to pre-school children to understand how the mind, emotion and

body work together and realize the appropriate and inappropriate levels of relaxation and tensions. Moreover, Lang and Stinson (1991), Davis (1991), Ballinger and Heine (1991) and Romano (1992) also supported to introduce stress management programs in schools.

## Method

This investigation was a pilot study under the Education Department school-based curriculum project scheme (1997). The purposes were to understand the student's concepts of stress, examine the application of stress management training in secondary school students in order to help students deal with stress in their daily life, and to introduce stress management in the school curriculum. The study was conducted in Hong Kong from the 24th of February to the 20th of March, 1998.

## Subjects

Subjects for this study were 22 male Form 6 students from Ng Yuk Secondary School in Shatin. The age range is 17 to 21 (average=18.3)

## Stress Management program

The stress management program consisted of lectures and relaxation training. The contents of lectures were the followings: What is stress sources of stress, stress and illness, stress and performance, nutrition and stress, goal setting, positive self-talk, positive self-image and social support. The relaxation training program consisted of stretching exercises, deep abdominal breathing and progressive relaxation training.

## Progressive Relaxation Training

Progressive relaxation training originated with the work of Edmund Jacobson in the late 1920s (Woodfolk & Lehrer, 1984). Jacobson's progressive relaxation training is based on gaining an awareness of the degree of muscular tension in one's body parts (Feltz & Landers, 1980). It is a technique used to induce nerve-muscle relaxation. Because the nerves control muscular contraction, this relaxation technique helps an individual relax mind by first relaxing the body (Greenberg, 1993).

Progressive relaxation program used in this study was a specific adaptation of the Jacobson method developed by McKay and Fanning (1983), and was translated into Chinese by the investigator. The training program was recorded on a 22-minute cassette tape. Basically, subjects were lying on the floor or sitting in the classroom when the tape was played. The tape gave exact instructions for subjects to follow. Subjects were

instructed to tense a muscle group and identify what tension felt like, then they were told to learn to relax the same muscle group. Subjects relaxed one muscle group after the other, and sensed tension flow out of these muscle groups and their bodies. They learned to relax arm muscles, facial muscles, then skull and shoulder muscles, and then abdominal and leg muscles. They became more aware of tension of muscles and, thus, learned more effectively to relax and consciously control the muscles.

## Procedures

The teaching materials which consisted of a cassette tape, overhead transparencies, lecture notes, and questionnaires were prepared by the investigator. The investigator explained clearly the contents of the stress management module to the physical education teacher beforehand. The stress management training program was conducted in physical education classes from 24th February, 98 to 20th of March, 98.

The investigator visited the school twice and observed the progress of the teaching with a staff from the Curriculum Development Institute (CDI). Questionnaire on the feedback of the training was administered at the last class. In addition, discussion sessions were also held among the CDI staff, the physical education teacher and the investigator to improve the quality of the program.

## Results

Data from the questionnaire was analyzed by utilizing the statistic package of social science 7.5 for Windows 95 computer program. Descriptive statistics was computed. Table 1 showed that examination, academics school work and future of the individual were the top three stressors for secondary school students. 63.6% of them handled stress by themselves and 50% of them reported that they had asked assistance from others. Friends, classmates, and parents were the top three individuals with whom students discussed their problems. The reasons that students discussed with these individuals were he/she is easy to find, he/she can listen patiently, student has confident in him/her, and he/she has knowledge and experience to help the student. If students could not find that individual, 63.60% of them reported that they would solve the problem by himself or herself.

Table 2 showed that most of students had satisfactory relationship with parents, brothers and sisters, and friends. They perceived that their friends understand them most. Exercise and shopping were the most common stress management methods for students.

In this study the opinion of students on commit suicide was also a matter of concern. 68.2 percent of students pointed out that commit suicide was a stupid act and 59.1 percent pointed out that it was not right.

The second part of the questionnaire was on feedback of the stress management program. Figure 7 demonstrated their comments on the stress management program. 9.1 and 77.3 percent of students responded that they fully understood and understood the theory session of the program respectively. While 77.3% pointed out that the teaching material was clear. Students had more positive feedback when the lesson was conducted in the classroom. 86.4% of them felt the level of relaxation was satisfactory in the classroom. Figure 11 pointed out that most of them did not fall asleep and a majority of them had relaxed all muscle groups. Table 4 showed that 68.2 and 59 percent of students felt comfortable and relax after the training respectively. In addition 77.3% responded that this training was easy to learn.

Moreover, students were also asked to write down their comments on the program. 13 positive responses were received and they were the followings: it helped them to relax, I felt very comfortable, it was easy and convenience, and I understood how to handle stress more. On the other hand, 11 responses on programme improvement had been received, the comments were the followings: to improve the teaching environment, need a quite place, need comfortable chairs or mats, need bigger space, and the quality and volume of the tape need to be improved.

## Discussion

This is a pilot study on the application of stress management program in secondary school, positive responses from students were received. Examination and academic / school work are the major stressors, and these are supported by the research from Lee in 1995. Friends and classmates are very important support groups for these students, and they rarely ask assistance from teachers and social workers to discuss their problems. This indicates the importance of good relationship with peer, while teachers and social workers should be more active in discussing problems and communicate with students. Room environment is one of the most important factors in teaching relaxation. The room must be quiet, a comfortable surface is needed for students to lie on, the room should be with dim light and suitable room temperature. In conclusion, stress management program has received positive feedback from students, so physical educators and school administrators should seriously consider to include this program into the school curriculum in the future.

## Recommendations

The following recommendations are presented as suggestions for further study on stress management programs for students.

1. Conduct a similar study with students from different age groups and bigger sample size.
2. Conduct a study with both male and female students.
3. Conduct a similar study with two or more groups of students, control group and stress management groups with different relaxation training programs.
4. Conduct seminars and training courses to introduce stress management program to physical education teachers and school administrators.
5. Produce educational materials, such as leaflets, tapes for students, and teachers.

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**Table 1. The Rank Order of Stressors for Secondary Male Students (N=22)**

Rank	Stressor	M	SD
1	Examination	7.23	1.95
2	Academic/school work	7.14	1.83
3	Future of individual	7.05	1.36
4	Financial and economic matter	5.23	2.20
4	Family	5.23	1.74
6	Relationship with teacher	5.09	2.02
7	Physiological changes/appearance/health	5.05	1.76
8	Friendship	5.00	2.14
9	Pollution	4.95	2.06
10	Relationship with classmate	4.91	1.90

**Table 2. Relationship with others**

Variable	Very good	Good	Satisfy	Fair	Undecided	No brother and sister
Parents	13.6	22.7	59.1	4.5		
Brothers & Sisters	18.2	13.6	50.0	9.1	4.5	4.5
Friends	8.10	50.0	36.4	4.5		

**Table 3. The Stress Management Methods**

Method	Never	Once within a year	Once within half year	Once within a month	Once within a week	Once a day
Exercise	1	1	1	2	14	3
Progressive Relaxation	12	2	1	3	4	--
Go to countryside	7	5	3	5	1	1
Shopping	2	0	1	10	8	1
Eating	9	--	1	4	2	6
Drinking	17	--	3	1	--	1
Smoking	20	1	--	--	--	1
Drugs	21	--	--	--	--	1

**Table 4. Comments after relaxation**

Comment	Strongly Agree	Agree	Do not know	disagree	Strongly disagree
feel comfortable	1	14	5	2	0
relax	0	13	6	3	0
feel fine	0	3	7	9	3
warm	0	7	9	5	1
easy to learn	2	15	4	1	0
continue to practice	0	2	16	3	1

Figure 1 Students' ways to handle problem

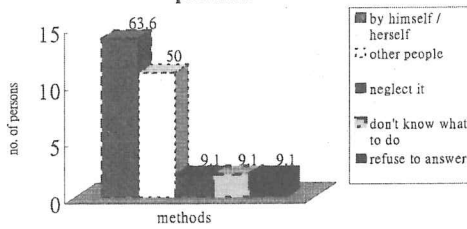


Figure 2 Individual with whom the student discuss problems

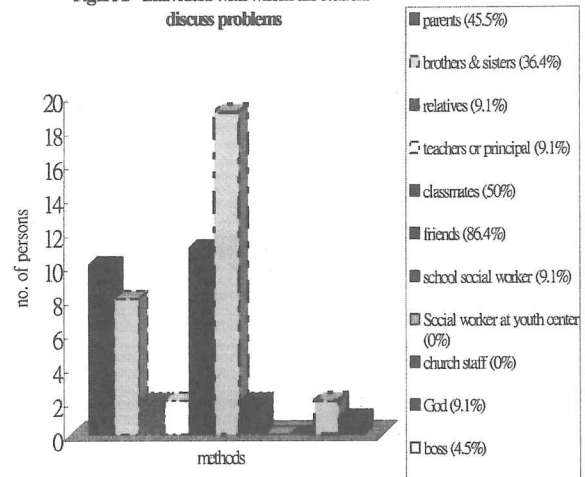


Figure 3 Reasons to find that individuals

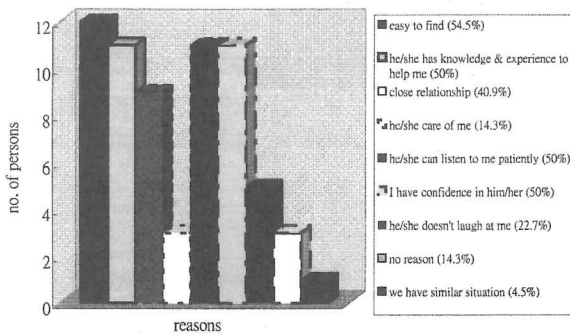


Figure 4 The response of students when they can't find the person to talk with

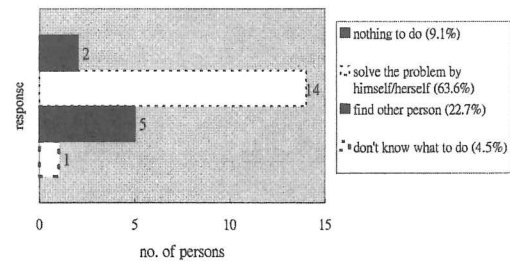


Figure 5 Individual who understand the student more

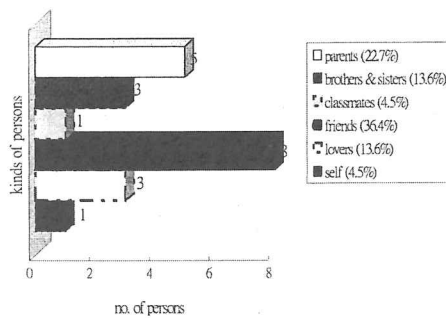
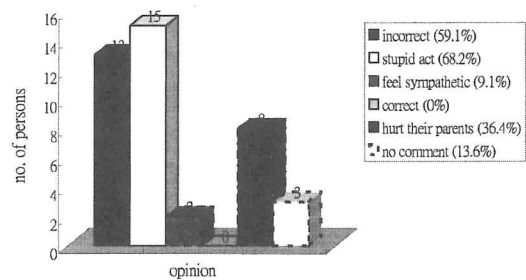


Figure 6 The opinion about commit suicide



Comments about the Relaxation Program:  
Theory Part

Figure 7 The level of understanding

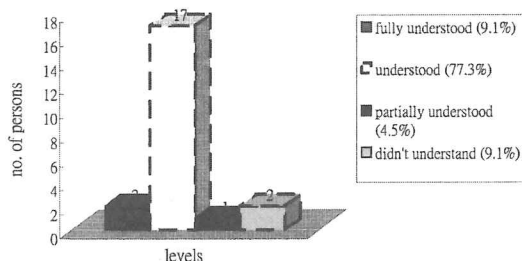


Figure 8 Comments on the transparencies

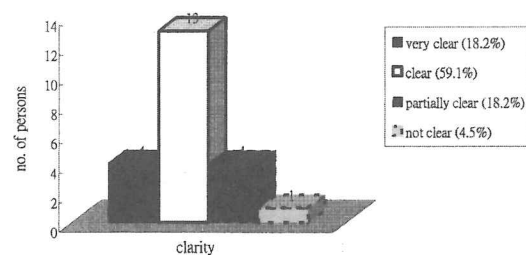
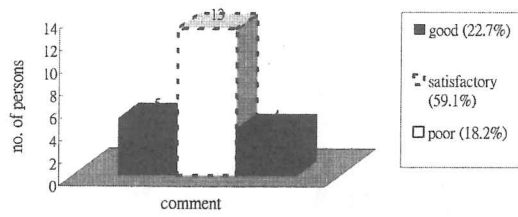


Figure 9  
Relaxation Exercise Environment:  
Hall:



Classroom:

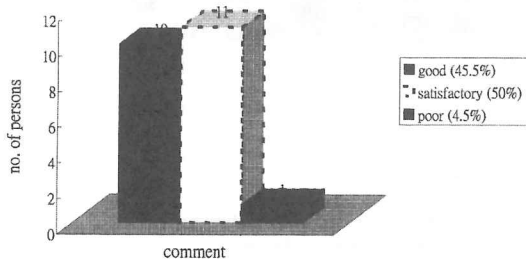
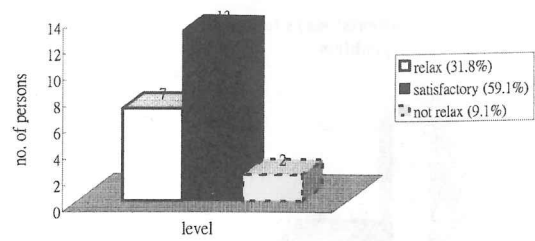


Figure 10  
Level of Relaxation:  
Hall:



Classroom:

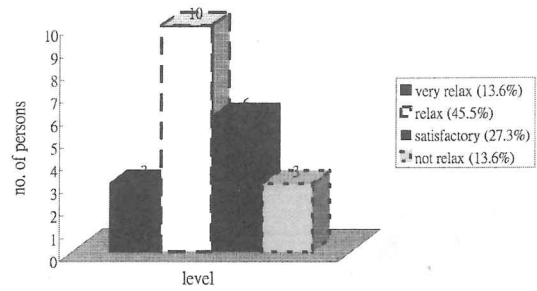
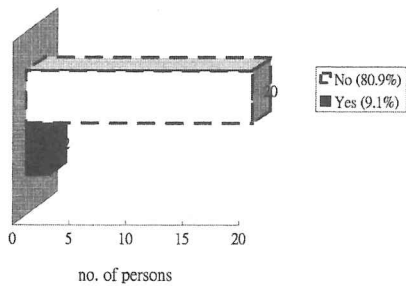


Figure 11  
Whether they felt asleep or not:  
Hall:



Classroom:

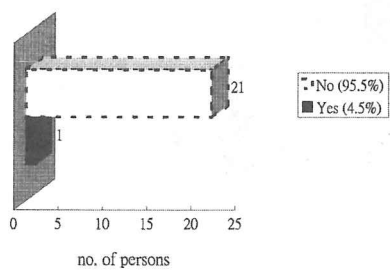
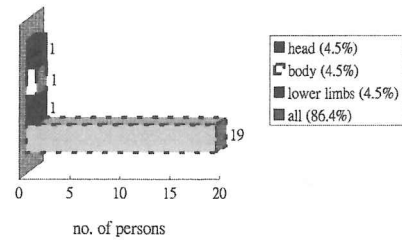


Figure 12  
Relax which body part:  
Hall:



Classroom:

