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Knowledge and Participation of Health Promoting Practices in College Students in Hong Kong: A Pilot Survey

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ABSTRACT

This research aimed to understand health promoting practices of Hong Kong college students by collecting some preliminary data. The research was a cross-sectional study, which was conducted in Hung Hom Bay and West Kowloon campuses of the College of Professional and Continuing Education (CPCE). Participants were mainly college students who studied in CPCE. Information about health promoting behavior of the college students were obtained by a self-administered questionnaire. The participants were chosen by random selection. The data were collected from March to April 2015 in the two campuses and were analyzed generally and by gender through the application of the SPSS. A total of 616 questionnaires were distributed and 610 were returned. The response rate was 99%. 40.4% seldom did physical activity as a routine and only 35.4% lived on a balanced diet. About two-thirds of the college students were mentally well because of enough sleep and seldom having insomnia. The majority of the students was positive in their spiritual well-being, and found life interesting and challenging. It is nice to know that over three quarters of the subjects were confident with their outlook and thus self-esteem.

KEYWORDS: Health Promoting Practices, Hong Kong College Students

1 INTRODUCTION

Adolescence is a transition period of growth and development that bridges childhood to adulthood. Youngsters at this stage are gradually assumed to be responsible for their own health (Lee and Loke, 2005). 60% of the quality of an individual's health and life depends on behaviour and lifestyle. Health promoting behaviour is the reverse to health risk behaviour. So instead of performing activities that increase an individual's susceptibility to negative health outcomes, health promoting behavior indicates a positive approach to life and at the same time increases individual's psychological well-being and self-actualization (Wang et al., 2009).

According to the World Health Organization (WHO), health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Youngsters will increasingly make independent choices about their lifestyle and establish healthy habit such as health promoting practices during their college years in order to maintain their lifetime physical, mental and social health, and thus reducing chronic disease incidence (Hallal et al., 2006). A variety of health promoting practices, such as doing physical activities, maintaining good eating habit, having enough rest, and maintaining good relationship with others, appeared to be proportional to health benefit (U. S. Department of Health and Human Services, 1996).

Physical activity is one of the factors affecting health. Physical inactivity, such as insufficient participation in physical activity and an increase in sedentary behaviour, has been identified as the fourth leading risk factor for global mortality. There are approximately 31% of adults who are physical inactive globally, and this has led to an estimated 3.2 million deaths all around the world (WHO, 2015a). In addition, evidence shows that physical activity in adolescence can effectively decrease the mortality in adulthood. Individuals engaged in more physical activity will present lower incidence rate of coronary heart disease, hypertension, type 2 diabetes mellitus, osteoporosis and certain cancers (Hallal et al., 2006).

Apart from physical health, mental and social well-being are also essential components of health. Mental health awareness helps us to deal with stresses and challenges that we encounter every day. It is created by our interactions with the world around us, such as spending time with friends, maintaining a meaningful relationship with others, and viewing life by taking time for relaxation. Nevertheless, it is not easy to maintain a good mental health. The mental health needs of today's college students are increasing. Many more college students suffer from serious psychological problems and the overall demand for counseling services is increasing. During the last decade, the needs of students seeking counseling services have changed from being developmental and informational needs to the more severe psychological problems (Kitzrow, 2003).

Researches show that a holistic view of health also includes a spiritual dimension of health (Orozco, 2003). Spiritual practice and mental health correlate positively. Spiritual practice promotes and encourages mental health (Thoresen, 1999; Koenig, McCullough, & Larson, 2001). Spirituality is regarded as an advanced stage of mental health. It is defined as a set of beliefs or attitudes (Hotson, 2009). It can help to provide significant meaning in challenging life situations and positively affecting youngsters' personal development. Hence many youngsters view spiritual development as a vital part of their growth (Orozco, 2003).

There are not many local studies on the health promoting lifestyle among Hong Kong students, particularly at the higher education level, except for the two studies carried out at the Hong Kong Polytechnic University (Lee and Loke, 2005) and the Chinese University of Hong Kong (Kim et al. 2013). Most of the literature is derived from the WHO Healthy School programme (Lee et al. 2003), which is focused in primary and secondary schools. Hence, we wish to obtain information on health promoting practices and behaviour of college students so that appropriate information, and interventions if deemed beneficial, can be provided to

college students to build up a healthy lifestyle and to prepare them for their future roles in the community. The study aims to identify health promoting practices in the (i) physical (i.e. eating habit and physical activity), (ii) mental, (iii) social, and (iv) spiritual aspects.

2 METHODOLOGY

This cross-sectional study was descriptive and was supported by data collected from a self-administered questionnaire, consisting of 26 questions, both in Chinese and English. The target population was full time post-secondary students, who studied in the Hong Kong Community College (HKCC) and School of Professional Education and Executive Development (SPEED) under the College of Professional and Continuing Education (CPCE), The Hong Kong Polytechnic University.

During March and April 2015, 616 questionnaires were distributed in the Hung Hom Bay (HHB) and West Kowloon (WK) Campuses of the CPCE. The subjects were chosen by random selection. Data collected from the survey were entered into the Statistical Product and Service Solutions (SPSS) programme for analysis.

3 RESULTS

A total of 610 questionnaires were returned and the response rate of 99.0% was satisfactory and very encouraging. There were 236 (38.7%) males and 374 (61.3%) females. The distribution and findings are listed in Table 1. In this study, whether the adoption of healthy lifestyle behaviour is practiced is defined by the frequency of responses. Seldom practiced means the health behaviour is not really practiced. Usually practiced means the health behaviour is regularly practiced.

3.1 Physical Health Aspect

3.1.1 Eating Habit (Questions 1 – 4)

158 (25.9%) of the respondents had the habit of eating breakfast every day. 162 (26.6%) usually did and 160 of the students (26.2%) sometimes or never ate breakfast. 394 (64.6%) would eat at least 3 servings of vegetables and fruits every day, while 216 (35.4%) of this sample seldom had this habit. Only 51 (8.4%) respondents usually substituted dried bean products for meat 2 to 3 times a week, while 389 (63.8%), or more than six out of ten, of them seldom had this eating habit. Again, similar number of students, 406 (66.5%) seldom replaced part of white rice with red or brown rice, and only a much smaller number of them, 107 (17.5%) usually ate red or brown rice instead of white rice.

3.1.2 Physical Activity (Questions 5 – 9)

161 respondents (26.4%), about a quarter, usually spent time for exercise routinely, and 247 (40.4%) of them seldom did exercise. 387 (63.5%), nearly two-thirds, of the respondents seldom did stretching exercises at least 30 minutes every day, and only a minority, 74 (12.1%), of them usually did. Likewise, 324 (53.1%), more than half of the respondents seldom did stretching exercises at least 3 times per week, and again, only 137 (22.5%) of the students usually had this habit. 333 (54.5%) of the respondents did not have much recreational activities like table tennis, golf or bowling, representing more than five out of ten, while only 100 (16.4%) of them usually have recreational activities. 145 (23.8%) of the respondents usually took part in moderate-intensity physical activity such as stair walking or jumping rope for 15 minutes or swimming for 20 minutes, and almost half, 292 (47.9%) of the subject seldom attended such moderate-intensity physical activity.

3.2 Mental Health Aspect (Questions 10-16)

198 respondents (32.5%) seldom got enough sleep of 6 to 8 hours, while 206 (33.8%) often and the remaining 206 (33.8%) of the subjects usually got enough sleep. 480 (78.7%) students admitted that they often or usually browsed on Internet in leisure for more than 3

hours. At the same time, half of, 310 (50.2%), the respondents usually felt frustrated when their mobile phone were far away. 432 (70.8%) respondents often or usually used mobile phone while walking. However, more than one third, 215 (35.3%), of the respondents reflected that they seldom kept on using mobile phone during gathering with friends or family. 314 (51.5%) respondents would usually take some time for relaxation every day, and only a minority, 108 (17.7%), of them seldom took time to relax daily. Almost two-thirds, 397 (65.1%), of the respondents seldom had insomnia, and only a small number, 92 (15.0%), of students usually had sleeping problem.

3.3 Social Health Aspect (Questions 17-21)

The vast majority, 491 (80.5%), of the respondents usually spent time with friends, and nearly two-thirds, 386 (63.3%), usually discussed problems and concerns with their friends. Not surprisingly, 493 (80.8%) and 522 (85.5%) of the subjects usually maintained a meaningful relationship with others and would help friends to solve problems respectively. Likewise, 443 respondents (72.6%) usually settled conflicts with others through discussion and compromise.

3.4 Spiritual Health Aspect (Questions 22-26)

The vast majority, 565 (92.6%), of the students often and usually felt that they were growing and changing in a positive way, while a similar proportion, 559 (91.6%) thought they were exposed to new experiences and challenges. 489 (80.2%) believed that life had a purpose, and 525 (86.1%) had found each day interesting and challenging. Only a quarter, 142 (23.4%) of this group seldom felt confident with one's outlook.

4 DISCUSSION

4.1 Physical Health

Physical wellness, including eating habit and physical activity, is one of the key components of health. It is the ability to maintain a healthy quality of life that allows people to perform daily activities without fatigue or physical stress (Glanz, Rimer and Viswanath, 2008). Hours of sleep, regularity of meals, physical activity, smoking and alcohol consumption, and physical health status are the critical components to measure health promoting practices and to promote optimum physical health (Belloc and Breslow, 1972).

4.1.1 Eating Habit

Poor eating habits can be detrimental to our health (University Health Service, 2015). Vegetables and fruit offer vitamins, minerals, dietary fibres and phytochemicals, and taking the recommended amounts of vegetables and fruit can help to prevent certain diseases such as heart diseases, stroke, hypertension, etc (Department of Health, 2012). Replacing meat with dried bean products not only provides an adequate amount of proteins, but also reduces fat intake and prevents overweight (Department of Health, 2014a). Red and brown rice is whole grain which provides higher dietary fibres than white rice (Department of Health, 2014b). Dietary fibres can help to increase immunity, prevent intestinal cancer and provide other health outcomes (Department of Health, 2014c).

According to the Department of Health (2015), adults aged 18 to 64 years should consume at least 5 servings of vegetables and fruits every day, including at least 3 servings of vegetables and at least 2 servings of fruits every day. In this survey, a third of the respondents seldom ate at least 3 servings of vegetables and fruits every day, well below the recommended consumption. Furthermore, most of respondents seldom substituted dried bean products for meat 2 to 3 times a week, or replaced part of white rice with red or brown rice. It appears that our students do not practice healthy eating habits.

Insufficient social support for healthy eating, bad family meal patterns, and increased fast food intake may be the main contributing factors, arising from studying at school and having social activities with friends, and dining out instead of having family meals, which can enhance healthy eating habits and healthy food intake (Hanson et al., 2005). Moreover, it has been shown that an association exists between eating fast food and low/less frequent consumption of vegetables and fruits (Rasmussen et al., 2006). Besides, it is not a common trade practice for restaurants to provide red or brown rice.

4.1.2 Physical Activity

Physical activity was defined as “any bodily movement produced by skeletal muscles that requires energy expenditure including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits”. In addition, exercise is “a subcategory of physical activity that is planned, structured, repetitive, and aims to improve or maintain one or more components of physical fitness”. Performing regular and recommended levels of physical activity brings a series of health advantages including improved muscular and cardiorespiratory fitness, weight control, and reducing the risks of certain health problems or diseases such as hypertension, cardiovascular diseases, etc. On the other hand, insufficient physical activity is one of the ten leading risk factors for global mortality and there is a 20% to 30% increased risk of death in people who are insufficiently active compared to those who are sufficiently active (WHO, 2015b).

According to the WHO (2015b), more than 80% of the adolescent population is insufficiently physically active worldwide, and this situation is becoming more serious. Most respondents in the survey seldom performed physical activity. Too much homework is one of the factors that lead to insufficient time to do physical activity. Students may be more willing to spend time on doing homework than performing exercises (Vu et al., 2006). Nowadays, there is a trend of sedentary behaviour among adolescents, including watching television, or playing computer or video games, leading to obesity that is not only caused by low energy expenditure, but also an increase in intake of snacks (Brodersen et al., 2007).

In the survey, there was a significant gender difference in physical activity including stretching exercises, recreational activities and moderate-intensity physical activities. Some studies have illustrated reasons that males have a higher physical activity involvement than females. The reasons are (i) males being more likely to have physically active with friends, (ii) gender roles and stereotype, (iii) males being likely to value competition and sports achievement, and (iv) males having greater interest in sports. Females are less likely to have interest and motivation to sports as they may not want to get sweaty or dirty (Vilhjalmsson and Kristjansdottir, 2003).

4.2 **Mental Health**

Mental health status can be influenced by personal life experiences such as stress and addiction, and can affect our thinking, mood and behaviour (MedlinePlus, 2015). It is nice to have two-thirds of the students slept well. However, nearly four in five would browse the Internet in leisure time for more than 3 hours every day, and use the mobile phone while walking. The use of the Internet has changed the way how people interact with others, gather and disseminate information, and have entertainment (Shek and Yu, 2012). The Internet has become an important part of college students' life, not only in their studies and daily routines, but also as a social tool to connect with other individuals, helping to uphold student's mental health with a sense of pleasure (Chou and Hsiao, 2000).

However, internet may cause health problems. Young people are more susceptible to internet addiction because they are less self-regulative and more susceptible to media influences (Chou and Hsiao, 2000; Fu et al., 2010). Internet addiction is currently becoming a serious mental health problem among adolescents, leading to loneliness and depressed mood (Cao & Su, 2007; Whang et al., 2003). It may also cause health problems like a decrease in

physical activity, poor diet, and an increase in obesity, as well as neglecting relationships with others. Lack of awareness of Internet use and its potential adverse effects on health is common in college students (Kim et al., 2013; Saisan et al., 2015).

4.3 Social Health

The social health or social well-being is the evaluation of one's circumstance and functioning in the society. In general, social support is thought to affect physical and mental health through emotions, cognition and behaviours (Cohen, 1988).

Both males and females express their feelings and intense emotions to people, who know intimately and feel closely related to. Females tend to rate their interpersonal interactions as intimate friends, and are more likely to talk with others and pray to deal with their angry feeling (Lewis et al., 2008). On the contrary, males are more likely to use mood-altering substances, such as alcohol. In the survey, female respondents were more likely to discuss problems and concern with friends, to maintain a meaningful relationship with others, to settle conflicts with others through discussion and compromise, and to help friends to solve problems. Gender differences are larger for the emotional expression than for emotional experience because male and female have different social roles that lead the way for them to follow different display rules (Brody and Hall, 1993).

4.4 Spiritual Health

Spiritual health is an important component of an individual's well-being, affecting the holistic health values. People feel spiritually connected and fulfilled when everything in their life was easier to deal with (Perkins, 2012). Life purpose has been found to be positively related to spiritual health (Kass et al., 1991). Moreover, according to Fisher (1998), spiritual health is positively concerning the well-being and the relationship of a person with themselves, others and the environment. The majority of the students were positive in their spiritual well-being, and most had found life interesting and challenging. It is nice to know that over three quarters of the subjects were confident with their outlook and thus self-esteem.

5 LIMITATIONS

During the research period, it was found that some of the respondents did not completely understand the definition and/or meaning in some questions in the questionnaire. Some of the questions were unclear to the respondents, and might have been misinterpreted by their own ways. Moreover, some questions regarding health promoting practices were not strictly based on international standards or as advised by the government.

6 CONCLUDING REMARKS AND RECOMMENDATIONS

The study has examined the health promoting practices of some higher education students. Health promoting practice is a pattern of self-initiated actions to control, maintain, or enhance personal health and well-being. It has become increasingly evident that lifestyle patterns have significant effects on long-term morbidity and mortality (Mo and Winnie, 2010). In view of the result, the vast majority of the students were positive in their spiritual well-being, but majority of the students did not reach the optimal health level in the physical, mental and social aspects, particularly in terms of unhealthy and imbalanced diet, lack of regular exercise, internet addiction, etc.

To improve the health status of the students, efforts should be placed on improving health promoting practices among students in eating habits, exercising, use of Internet and social relationship. Interventions such as encouraging students to do exercise during class breaks, setting up supporting teams and organizing interactive activities in college are recommended.

In order to further understand the health promoting practices of the students, a larger scale survey with a better designed questionnaire is suggested. Furthermore, trials of interventions can be conducted to identify potential tools for promoting healthy lifestyle at the university in order to better prepare our young graduates for their new roles in the workforce and new families.

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Table 1 The results of the survey

Questions	Frequency	Male	Female	Total
		236 (38.7%)	374 (61.3%)	610 (100%)
Q1. I eat breakfast every day.	Seldom	61 (25.8%)	99 (26.5%)	160 (26.2%)
	Often	57 (24.2%)	73 (19.5%)	130 (21.3%)
	Usually	118 (50.0%)	202 (54.0%)	320 (52.5%)
Q2. I eat at least 3 servings of vegetables and fruits every day.	Seldom	93(39.4%)	123 (32.9%)	216 (35.4%)
	Often	83 (35.2%)	148 (39.6%)	231 (37.9%)
	Usually	60 (25.4%)	103 (27.5%)	163 (26.7%)
Q3. I substitute dried bean products for meat 2-3 times a week.	Seldom	162 (68.7%)	227 (60.7%)	389 (63.8%)
	Often	56 (23.7%)	114 (30.5%)	170 (27.9%)
	Usually	18 (7.6%)	33 (8.8%)	51 (8.4%)
Q4. I replace part of my white rice with red or brown rice.	Seldom	152 (64.4%)	254 (67.9%)	406 (66.6%)
	Often	39 (16.5%)	58 (15.5%)	97 (15.9%)
	Usually	45 (19.1%)	62 (16.6%)	107 (17.5%)
Q5. I start a routine and make time in my day for exercise (e.g. 10 minute walk after meal).	Seldom	75 (31.8%)	172 (46.0%)	247 (40.5%)
	Often	78 (33.0%)	124 (33.1%)	202 (33.1%)
	Usually	83 (35.2%)	78 (20.9%)	161 (26.4%)
Q6. I do stretching exercises at least 30 minutes every day.	Seldom	117 (49.6%)	270 (72.2%)	387 (63.5%)
	Often	78 (33.0%)	71 (19.0%)	149 (24.4%)
	Usually	41 (17.4%)	33 (8.8%)	74 (12.1%)
Q7. I do stretching exercises at least 3 times per week.	Seldom	96 (40.7%)	228 (61.0%)	324 (53.1%)
	Often	63 (26.7%)	86 (23.0%)	149 (24.4%)
	Usually	77 (32.6%)	60 (16.0%)	137 (22.5%)
Q8. I do recreational activities (e.g. table tennis, golf, and bowling).	Seldom	100 (42.4%)	233 (62.3%)	333 (54.6%)
	Often	67 (28.4%)	110 (29.4%)	177 (29.0%)
	Usually	69 (29.2%)	31 (8.3%)	100 (16.4%)
Q9. I take part in moderate physical activity (e.g. stair walking or jumping rope for 15 minutes, swimming for 20 minutes).	Seldom	74 (31.3%)	218 (58.3%)	292 (47.9%)
	Often	71 (30.1%)	102 (27.3%)	173 (28.3%)
	Usually	91 (38.6%)	54 (14.4%)	145 (23.8%)
Q10. I get enough sleep (6-8 hours).	Seldom	68 (28.8%)	130 (34.8%)	198 (32.4%)
	Often	78 (33.1%)	128 (34.2%)	206 (33.8%)
	Usually	90 (38.1%)	116 (31.0%)	206 (33.8%)
Q11. I browse on the internet in leisure time for more than 3 hours every day.	Seldom	39 (16.5%)	91 (24.3%)	130 (21.3%)
	Often	54 (22.9%)	108 (28.9%)	162 (26.6%)
	Usually	143 (60.6%)	175 (46.8%)	318 (52.1%)
Q12. I feel frustrated when mobile phone is far away from me.	Seldom	124 (52.6%)	176 (47.1%)	300 (49.2%)
	Often	60 (25.4%)	81 (21.6%)	141 (23.1%)
	Usually	52 (22.0%)	117 (31.3%)	169 (27.7%)
Q13. I use mobile phone while I am walking.	Seldom	77 (32.6%)	101 (27.0%)	178 (29.2%)
	Often	67 (28.4%)	106 (28.3%)	173 (28.3%)
	Usually	92 (39.0%)	167 (44.7%)	259 (42.5%)
Q14. I keep on using mobile phone during gathering with friends or family.	Seldom	81 (34.3%)	134 (35.8%)	215 (35.2%)
	Often	91 (38.6%)	134 (35.8%)	225 (36.9%)
	Usually	64 (27.1%)	106 (28.4%)	170 (27.9%)
Q15. I take some time for relaxation every day.	Seldom	34 (14.4%)	74 (19.8%)	108 (17.7%)
	Often	67 (28.4%)	121 (32.3%)	188 (30.8%)
	Usually	135 (57.2%)	179 (47.9%)	314 (51.5%)
Q16. I have insomnia.	Seldom	155 (65.7%)	242 (64.7%)	397 (65.1%)
	Often	45 (19.1%)	76 (20.3%)	121 (19.8%)

	Usually	36 (15.2%)	56 (15.0%)	92 (15.1%)
Q17. I spend time with friends.	Seldom	12 (5.1%)	11 (2.9%)	23 (3.8%)
	Often	38 (16.1%)	58 (15.5%)	96 (15.7%)
	Usually	186 (78.8%)	305 (81.6%)	491 (80.5%)
Q18. I discuss my problems and concerns with friends.	Seldom	39 (16.5%)	43 (11.5%)	82 (13.4%)
	Often	62 (26.3%)	80 (21.4%)	142 (23.3%)
	Usually	135 (57.2%)	251 (67.1%)	386 (63.3%)
Q19. I maintain a meaningful relationship with others.	Seldom	12 (5.1%)	9 (2.4%)	21 (3.4%)
	Often	38 (16.1%)	58 (15.5%)	96 (15.7%)
	Usually	186 (78.8%)	307 (82.1%)	493 (80.8%)
Q20. I settle conflicts with others through discussion and compromise.	Seldom	12 (5.1%)	18 (4.8%)	30 (4.9%)
	Often	62 (26.3%)	75 (20.1%)	137 (22.5%)
	Usually	162 (68.6%)	281 (75.1%)	443 (72.6%)
Q21. I help friends to solve problems.	Seldom	5 (2.1%)	7 (1.9%)	12 (2.0%)
	Often	37 (15.7%)	39 (10.4%)	76 (12.4%)
	Usually	194 (82.2%)	328 (87.7%)	522 (85.6%)
Q22. I feel I am growing and changing in a positive way.	Seldom	17 (7.2%)	28 (7.5%)	45 (7.4%)
	Often	64 (27.1%)	108 (28.9%)	172 (28.2%)
	Usually	155 (65.7%)	238 (63.6%)	393 (64.4%)
Q23. I expose myself to new experiences and challenges.	Seldom	23 (9.7%)	28 (7.5%)	51 (8.4%)
	Often	67 (28.4%)	127 (34.0%)	194 (31.8%)
	Usually	146 (61.9%)	219 (58.5%)	365 (59.8%)
Q24. I believe that my life has a purpose.	Seldom	44 (18.7%)	77 (20.6%)	121 (19.8%)
	Often	65 (27.5%)	130 (34.8%)	195 (32.0%)
	Usually	127 (53.8%)	167 (44.6%)	294 (48.2%)
Q25. I find each day interesting and challenging.	Seldom	35 (14.8%)	50 (13.4%)	85 (13.9%)
	Often	68 (28.8%)	132 (35.3%)	200 (32.8%)
	Usually	133 (56.4%)	192 (51.3%)	325 (53.3%)
Q26. I feel confident with my appearance.	Seldom	52 (22.0%)	90 (24.1%)	142 (23.3%)
	Often	99 (42.0%)	171 (45.7%)	270 (44.2%)
	Usually	85 (36.0%)	113 (30.2%)	198 (32.5%)