

STUDENT MENTAL HEALTH - SERVICES AND EPIDEMIOLOGY

IN TAIWAN (REPUBLIC OF CHINA)

Eng-kang Yeh, M.D.

Dr. Yeh is on the staff of the Department of Neurology and Psychiatry, National Taiwan University, Taipei, Taiwan, Republic of China.

Basing on the author's clinical experiences with students, a series of studies on student mental health problems, and an intensive search of literature, this paper reports on 1) the services for student mental health including traditional concept and current practice, the problems in light of modern psychology and the new movement in establishment of student guidance centers, 2) some major findings in the epidemiology of mental health problems, and 3) the relevant bibliography and journals in Taiwan.

I. The traditional concept of education and current practice of mental health works in colleges in China. The organization and practice of mental health and the attitude of the personnel toward the students in college in China stem deeply from the traditional concept of education. Though the term "mental health" as a modern psychological area of knowledge is quite new, this does not mean that the student mental health functions have been neglected in China. On the contrary, mental health functions in terms of "discipline", "guiding" and "cultivation" have been very much emphasized. This is well epitomized in the Chinese translation "Chau-yu" for the English term "education." "Chau" means to "teach and discipline", and "yu" means to "guide and cultivate." In traditional China, education does not only mean to provide knowledge and skills but also to guide a student to cultivate superior personality with high moral standards. "Teaching", "discipline", "guidance" and "cultivation" are brought together with equal importance in traditional Chinese education.

This has also been illustrated in the unique style of organization and administrative system in the current practice of mental health support for students. Within the University there are three offices under the president; namely, the offices of studies, students, and general affairs. The office of studies is mainly concerned with the academic areas of teaching, the office of students is responsible for "discipline", "guidance" and "assistance" in students' welfare and general matters of living. It is this office that is supposed to be responsible for the mental health of students. The traditional concept and orientation of the college authority to mental health provisions and the functions of the office of students have been well demonstrated in the Chinese phrase "shung-tao" for the English term "student affairs." "Shung" means "discipline", and "tao" means "guidance" and "cultivation". Again, as we see, "discipline", "guidance" and "cultivation" are very much emphasized in the whole mental health system for students. In the office of students, there is a Section of Guidance of Living which is responsible for students' welfare and general matters in living such as management of the school dormitory, applications for scholarships, and control of students' behavior and conduct. There is also a Section of Extracurricular Activities for supervisions and planning of all extracurricular and social activities in or outside of the campus, and a Section of Physical Education for athletic and health activities.

In order to supervise the works for student affairs, the Ministry of Education appointed the "Committee for Guidance and Cultivation (shiu-yu)" in 1945 and ordered all colleges and universities to establish the same type of committee in each school. This Committee is the highest organization for planning and policy-making concerning student affairs and supervision of the activities of the office of students. The Committee is headed by the president with the deans of studies, of students, and of general affairs as standing members plus 15-18 members appointed by the president from the faculty or administrative staff with the dean of students serving as executive secretary. As one of the main functions of the office of students, there is a tutorial system by which a group of 5 - 8 students are assigned to one tutor for closer individual guidance. The Tutors are usually faculty members appointed by the president on a non-payment basis.

The rapid increase of overseas Chinese students returning to Taiwan for higher education in recent years has created various problems for both the schools and the students. In order to assist and guide overseas Chinese students for better adjustment to the new environment and for solving various problems, a special Guidance Committee for Overseas Chinese Students has been established in each college or university.

TAIWAN

Since military training has become an obligation for all college freshmen and sophomore students, and since one year of service in the army has been made compulsory (1952) for all male graduates, army officers have joined the staff of all colleges. They are designated as "chaukuang" which means "teaching officer." The operation of the Section of Guidance for Living was soon taken over by these army officers and they have, thus, become the main personnel actually responsible for all areas of student welfare, living, and extracurricular activities. The work of these army officers is under the close supervision of The Chinese Anti-Communism Nation-Saving Youth Corps, which is formally under the administration of the Ministry of Education and functionally under the Ministry of Defense. This has made this Corps the powerful organization over the guidance activity for students in colleges and universities. The significant role that this Corps has been playing deserves special mention. This Corps has its own press, publishes magazines and pamphlets, and sponsors academic study seminars on various subjects, and athletic or recreational activities during summer and winter vacations every year. On each occasion, thousands of high school and college students are invited to participate in these seminars and activities.

II. The problems in current mental health activities and the new movement. Though mental health activities in terms of guidance has been very much emphasized in the whole educational system in traditional China, their essential purposes are to cultivate a "superior citizen" with superior personality and morality." The concept of the ideal student is determined not only by a traditional morality concept but also very much by the political needs of the government. Three "People's Principles" are assigned to all levels of schools as the fundamental doctrine in education and the guideline for student guidance. The student guidance. The students are educated, disciplined and guided to be the persons that the school authority and the nation want them to be. To be more explicit, there are already established models for students which the educational authority thinks the student should be. The army officers engaged in guidance functions did not have any professional training. They are also responsible for the whole "security" of the school. The attitudes of the personnel in the office of students have, subsequently, tended to be "disciplinary" and "controlling", and rigid about the school "regulations" rather than "understanding", "accepting", and "assisting" based on an understanding of individual psychological needs.

There are many "regulations" set by the office of students to order the students' behavior and conduct and formalities that they have to follow in daily school life including the details of regular attendance in and absence from the class, sick-leave, etc. Each tutor is requested to evaluate the conduct of the students assigned to him and to report the "marks of conduct" on each student to the office of students each semester. "Marks of conduct" under a certain level or the violation of the regulations make a student subject to expulsion from the school. The main functions of the office of students tend, therefore, to be regarded by the students as "controlling", "investigating" and "punishing" rather than "assisting" or "solving" their student problems. The dominance of army officers in the Section of Guidance for Living has made the office of students emotionally distant from the students.

With the rapid and massive increase in the numbers of students in higher education and the consequent shortage of qualified teaching staff and "guidance" personnel, the functions of the office of students have come to be limited only to the enforcement of regulations, and tutorage exists only in name. Although each college or university is requested to have a student health center under the administration of the Dean of Students, there are, to the knowledge of the author, only two universities which have relatively well-established student health centers. All the other colleges or universities have actually only one small office or room for health care with one or two part-time physicians and limited functions. Even in the National Taiwan University, which is the largest and the best university of the nation, with its own College of Medicine, there is not even a full-time psychologist or psychiatrist working in the student health center. All these factors have made for a very low rate of student consultations at the health center or office of students for assistance with mental health problems.

During the last half decade or so, owing to the increased awareness of the urgent needs of psychologically and psychiatrically oriented mental health services for students, and to the development of the concerned professions and the availability of the trained personnel for this kind of service, modern psychologically oriented guidance and/or testing centers have been established independently of the office of students in several colleges and universities. The establishment of the Chinese Guidance Association in 1957 by concerned professional individuals has marked an important step forward in the history of guidance activity in China. The Association has published a monthly journal since 1964 (in Chinese), and sponsors various seminars and training courses for guidance personnel every year. The scope and intensity of the works and the methods of approaches in each center vary according to theoretical orientation, the nature of the problems, and the availability of the personnel and the budget. Some examples of these centers are described briefly below.

TAIWAN

1. National Cheng-chi University - This is a medium size national university with 3 colleges and a total of 4800 students including 450 graduate students and located at Mu-san, an outskirts district of the city of Taipei. This university established a Committee for Study of Mental Health Problems in 1965 with the president as chairman, deans of studies and students as standing members, and several professors of the Department of Education as members appointed by the president. Under this Committee the university established a Student Guidance and Mental Health Center responsible mainly for the study of academic, mental health and general adaptational problems of the students by means of psychological tests, and to provide individual counseling. The most outstanding task that this center has accomplished during the past several years is an intensive study on the standardization of various psychological tests under the directorship of Prof. P. C. Hu, Chairman of the Department of Education, and Prof. F. M. Cheng of the same department.

The following are the tests which have been intensively studied and been reported in journals in Taiwan: 1. The Mooney Problem Check List (for college, and senior and junior high school students) 2. Multiple Aptitude Tests (mainly for junior high school students) 3. The Bell Adjustment Inventory 4. Thurston Temperament Schedule 5. Brainard Occupational Preference Inventory 6. Brown-Holtzman Survey of Study Habits and Attitudes 7. Cattell's Culture Fair Intelligence Test 8. Revised Minnesota Paper Form Board Test.

This Center has also played a central role in the training of guidance personnel for the high school students in collaboration with the Chinese Guidance Association. The number of students seen for individual counseling has been small. The problems presented were in academic, family, religious areas, difficulties in decision of professional career, and marital adjustments. A very limited number of psychiatric consultations was available through a part-time psychiatrist who taught mental health at the university.

2. Private Ton-Hai University - This is a small missionary university with a total of 1,100 students in 3 colleges located in Taichung, the third largest city in Taiwan. The university is characterized by small numbers of students in each class of the departments with close teacher-student relationships. A Testing and Guidance Office was established independently from the office of students in 1959, with the dean of studies as director and several faculty members from the Department of Sociology serving as part-time workers. This is perhaps the only university in Taiwan where a professor of psychology with a Ph.D. degree in counseling psychology from the United States serves as a counselor in the guidance center. The services for individual counseling were begun in 1968, and the number of students consulted is small. The main activities accomplished by this office are 1) an intensive study of general intelligence, Chinese and English proficiency, mathematic ability and aptitude of the freshmen; and 2) guidance for the selection of jobs and graduate study abroad for the new graduates. A series of general intelligence tests for the Chinese freshmen, known as Tong-Hai University Tests, have been standardized by this office under the directorship of Prof. S. C. Tang. Studies to standardize some personality tests for Chinese students are now in progress in this office.

3. National Taiwan University - This is the largest and the best university of the country with 6 colleges including a well-established Medical College and a total of 11,150 undergraduate students and 700 graduate students. The university has had over 40 years of history since the days of Japanese administration when it was called Taipei Imperial University, and was further expanded and developed after the Chinese government took over in 1945. There are three separated campuses; namely, a main campus including the Colleges of Liberal Arts, Science, Agriculture, and Engineering, the campus of College of Law and Commerce, and the campus of College of Medicine and the University Hospital. The main and second campuses have their own health stations for minor health problems of the students. The major physical and psychiatric problems of the students are referred to the University Hospital for treatment. In order to meet the urgent demands for expansion and intensification of health services for students, the university established a new student health center on the main campus in 1967. Though mental health was included as one of the major services of the center, not even one part-time psychiatrist has been available at this center up to date. The students with major mental health problems are still referred to the Department of Psychiatry of the university hospital.

The Student Counseling Center was founded separately from the health station earlier in 1964 in the Department of Psychology in order to study psychological problems of the students and applicability of various psychological tests to Chinese students, and to provide individual counseling and guidance for students. There are two assistant directors and 7 workers appointed from the faculty members and graduate students of the departments. Various kinds of psychological tests are intensively used as main tools in understanding student problems. Up to June 1969, a total of 317 students (223 males and 94 females) have consulted this center. The problems presented are

TAIWAN

broad in scope including academic problems, neurotic emotional problems, love affairs, requests for testing only, interpersonal difficulties, lacks of confidence, family problems, sex problems, difficulties in school adjustment and some minor health problems. Students with severe emotional difficulties are referred to the psychiatric department of the university hospital. The following tests have been intensively studied and standardized for Chinese students at this department and center: 1. Chinese version of M.M.F.I. 2. Edwards Personal Preference Schedule 3. Ko's Mental Health Questionnaire 4. Rotter's Sentence Completion Blank 5. Strong Vocational Interest Inventory 6. Allport's Study of Values 7. Guilford-Zimmerman Temperament Survey 8. Cattell's College Qualification Test 10. California Test of Mental Maturity.

4. National Normal University - This is a large university with a total of 5,200 students, including 83 graduate students and 2100 evening students, located in Taipei. This is perhaps the only university in Taiwan in which the mental health activities of different disciplines such as educationists, educational psychologists, guidance personnel of the office of students, and psychiatrists are all integrated into the whole health services of the student health center. The Department of Education and the Psychological Laboratory Center started early in 1958 to offer individual counseling, but to relatively few students in conjunction with intensive studies on the standardization of some psychological tests, and to teach in education and guidance. The projects which have been carried out in the standardization of various kinds of psychological tests for college and high school students at this center have been noteworthy.

The new Department of Educational Psychology headed by Prof. C. H. Hwang was established out of this center in 1968. The following are the main psychological tests that have been intensively studied or standardized for Chinese college students by this department: 1. Edwards Personal Preference Schedule 2. Rosenzweig Picture-Frustration Study 3. California Psychological Inventory 4. Allport's Study of Values 5. Minnesota Counseling Inventory 6. Harrower's Multiple Choice Rorschach Test.

A student health center was established in the Department of Health Education in 1957 in order to integrate the whole mental health activity into the health framework of this center and to provide better health services and education. To accomplish this, two psychiatrists (this author and his colleague) were invited to serve on a part-time basis. As the first step of the program, an epidemiological survey of mental health problems was carried out on all freshmen entering in 1963. These freshmen were regularly studied until their graduation in 1967. Some important findings are summarized in the following Section III. In the effort to integrate and intensify mental health services at this center, the following systems were put into practice during the past several years.

1. Two questionnaires, which proved to be highly valid and reliable in psychiatric case findings, have been applied to every newly enrolled student at the time of entrance since 1964.
2. Those who were found to have significantly high scores in the questionnaires were encouraged to visit the center for further evaluation.
3. Counseling provided at the Department of Education and Psychological Laboratory Center has been integrated into the total mental health services of the health center to work closely with specialists in each field of medicine and psychiatrists. The services were expanded so that at least one person was available for mental health consultation every day.
4. A system was established to afford follow-up care to all students with major psychiatric disorders treated at an outside hospital and to examine all students requiring long-term sick-leave from the school or returning to school from sick-leave for psychiatric disorders.
5. Meetings at one or two weeks' interval were held regularly to discuss some important mental health problems and cases by all the staff participating in the activities. Officers and personnel in charge of each section of the office of students were invited to the meetings to further enhance mutual understanding and communication among the several disciplines.

Three hundred and fifty-six students consulted or were seen at this center during the past 4 years. Among the problems presented, personality problems ranked highest and next were the students for after-care of major psychiatric disorders following their discharge from hospitals. Other problems, as ranked in order to lesser degrees, were family problems, relationships with friends including the opposite sex, difficulties in adjusting to the new living environment, marital, economic pressures, difficulties in career decisions, and so on.

III. Epidemiology of mental health problems: The case of the National Normal University. Though the statistics of the Department of Neurology and Psychiatry, National Taiwan University Hospital have shown that the number of college students consulted for psychiatric disorders were approximately one-tenth of the total number of psychiatric patients and one-fourth of the number of corresponding age-group patients, there were no reliable data available about the true prevalence rates of psychiatric disorders among college students in Taiwan until 1963, when this

TAIWAN

author initiated a series of studies. Using well established and defined methods, the author and his colleagues conducted an intensive epidemiological investigation of the mental health problems of college students in the National Normal University during 1963-67, in order to provide the university authority with a true picture of student mental health as a guideline for planning mental health services. The study was specifically aimed to find out 1) the prevalence rates of psychiatric disorders among freshmen, 2) the validity and stability of some questionnaires in psychiatric case findings, 3) the family, social, environmental and life-experience factors related to high risks of psychiatric disorders, 4) the relationships between academic achievement and mental health, and 5) the changes of prevalence rates during four years of college.

All of the 1,137 students newly enrolled in this university (day classes) were used as the sample population for this study. At the time of the entrance physical examination, basic information was collected from every one of the freshmen in respect to his current mental condition through a specifically designed mental health questionnaire (M.H.Q.), to their family-social-cultural-living environment and attitude toward the college, past school experiences, medical history, as well as other factors through a background questionnaire, and to their personality pattern through a Chinese version of the Maudsley Personality Inventory (M.P.I.). Another simple self-rating type of health questionnaire was checked by each student at the end of the first semester and academic year in order to rate the student's self-evaluation of health. Finally, at the end of the first academic year, 313 systematically derived subjects were individually interviewed by two psychiatrists for psychiatric evaluation and diagnosis. At the end of the sophomore and junior years, a follow-up study was made of all the students by means of a simple, self-rating type of health questionnaire. At the end of the senior year, the same questionnaires as were used in the freshman year were given and the same random samples were individually interviewed by the same psychiatrists for diagnosis. Thus, the total group of freshmen enrolled in 1963 was intensively studied up to the time of graduation. Some major findings are outlined below.

1. Prevalence of psychiatric symptom-manifestations among freshmen. Total of 30.7% of the interviewed subjects had manifested psychiatric symptoms which could be regarded as falling within the category of psychiatric cases according to well-defined criteria during the freshman year. Of this 30.7%, 5.1% showed more obvious and severe symptoms and needed immediate psychiatric treatment, while 25.6% showed milder symptoms and could be regarded as "highly probable psychiatric cases." As a whole there was no significant difference in the prevalence rate between male and female students. Among female students, the prevalence rate of psychiatric disorders was highest in the overseas Chinese group, lowest in the native Taiwanese group, with mainland students standing in between. This difference was not noted in male students. The great majority of symptoms manifested were psychophysiological reactions and psychoneurosis either alone (15.5% in the former and 9.9% in the latter) or both combined (4.2%), and 1.6% were personality disorders. The rate of psychophysiological reactions was significantly higher in female (especially in the overseas Chinese group) than male students. This clearly indicated the vulnerability of female overseas Chinese students to psychophysiological disorders. Tensionheadache, heavy sensations in the head, dizziness, upset gastrointestinal functions, and general weakness were common psychophysiological symptoms to the whole group, and disturbed menstrual cycle and upset gastrointestinal functions were commonly seen among the female overseas Chinese students.

When compared with the corresponding age-group of the general population in Taiwan, the rate of psychophysiological reactions of the freshmen was significantly lower in the male, while it showed no significant difference in the females. In contrast to psychophysiological reactions, the rate of psychoneurosis in the male sex was significantly higher in the students, while it showed no significant difference in the female sex. Anxiety, depression in the form of decreased memory, difficulties in concentration during study, insomnia, dreamfulness, inferiority and pessimism toward the future, and overconcern about health were common neurotic symptoms. There were two psychotic cases, both males, in the total freshman population of 1,137 during one academic year. One was a paranoid reaction with acute panic attack and recovered after two months of hospitalization and could continue the schooling smoothly after repeating the freshman year. The second case was a relapsed schizophrenic. He was regularly followed-up and treated at the student health center, but relapsed twice, both times requiring hospitalization, and was finally dismissed from the school because of his poor records. The rate of psychoses in freshmen was significantly lower than the corresponding age-group of the general population.

2. The factors related to high risks of psychiatric disorders. Having age specified, the authors were not able to find statistically significant differences in the case rate of psychiatric symptom manifestation between each item of the social, cultural and environmental background factors, except in two instances, "nature of home town" and "financial burden to family by entrance to college." In both sexes, those students whose homes were in "small towns" showed a higher case rate than would be expected compared to those who were from the "city" or "rural areas."

TAIWAN

In males, those who declared "no financial difficulties at all by entrance to college" showed a higher case rate than those who indicated "very much difficulties", and the case rate was lowest in those who declared "little difficulties"; among the females, the case rate was highest in those who declared "very much difficulties" than in those who stated "not at all" and "a little."

The authors did not find as many factors which were related to high case rates as in the other studies. The explanation for this is still difficult to determine at this time. But two explanations may be relevant; 1) the different methods applied made comparison difficult, and 2) our students in Taiwan are highly selected and are more homogeneous in background than the students in the other cultures. Instead of social, cultural and environmental factors, the authors found the students' "self-evaluation" of their own health to be significantly related with the case rate of psychiatric disorders. Those who rated their health to be "below average" showed significantly higher case rates than those who indicated ratings of "average" and beyond average." It was the author's impression that student mental health or disorder-proneness that should be expected during the years to come in college life can be better and more reliably predicted from the student's medical history and attitude towards his health, along with the way he reacted to adjust to his environment, rather than being estimated from the environment he was fitted into.

3. The attitude of the students in seeking professional help before entering college.

Among those who were diagnosed as "psychiatric cases", 58.3% had never seen a doctor of any kind, 28.1% reported a history of taking some kinds of medicine by themselves without a doctor's prescription, and only 41.7% had consulted physicians. Female students had more opportunities to see doctors than males. The attitude of seeking professional help in psychiatric cases did not change much during the four years of college life. The rates of seeking professional help were significantly related to their own evaluation of health rather than the presence of objectively defined psychiatric symptoms. Male students consulted the university student health center more frequently than the female students. In both sexes, those who lived away from their families seemed to use the student health center more than those who lived with their families in Taipei. Though the number of students consulting the student health center with mental health problems has been increasing during the past several years, they are still far below the number to be expected.

4. Changes of prevalence rates of psychiatric disorders. A follow-up study showed, on a whole, no significant change in the case rates of psychiatric disorders in both sex groups. Some differences seemed, however, to be noteworthy. The rate of psychoneurotic symptoms increased in both sexes, especially in the female group, while psychophysiological symptoms decreased significantly in both sexes during the senior year as compared with the freshman year. This may be explained on the basis of the changes in the mechanisms that the students used to deal with their psychological or adaptational difficulties during four years of college experiences. The somatization mechanism may have become less used, and perhaps the psychoneurotic "defense mechanism" manifested in various forms of symptoms has become prominent as they go through the college career. It may be speculated that the students undergo tremendous experiences of "self-realization" and search into "identity" and "values" during the years of college life, and that these experiences may result in a so-called "identity-crisis" which may be manifested in various forms of psychoneurotic symptoms.

5. The relationship between academic achievement and mental health. The comparison of the Z-score (degree of deviation from the mean of the class) of each student showed that the academic achievement of the students with psychiatric symptom manifestations was obviously lower than that of non-psychiatric students. These differences were more obvious in the common subjects required for all freshmen, such as Chinese, National History, Three People's Principles, and in the subjects which required mostly outdoor activities such as athletics, military training, etc., than in the subjects which were specific to the departments that the students attended. These seemed to reflect the students' attitudes towards the study subjects and courses. The students seem to attach more importance and values to the subjects that were specific to their departments than to the courses or subjects required of all students. The latter subjects were apparently thought by the students to be "not important" and "extra subjects." Since the adjustmental efficiency of the students with psychiatric symptoms was low, they may have selectively concentrated more energy on the subjects they thought to be "important" and to put less effort or to neglect the "not important" subjects. The follow-up study up to the senior year has shown exactly the same trends. Further analysis has also shown the consistent negative correlation between the academic achievement and the scores of neuroticism of M.P.I. and the M.H.Q.

6. The validity and usefulness of the M.P.I. and M.H.Q. in psychiatric case finding and study of mental health in students. In both sexes, the mean scores of both the neuroticism indices of

TAIWAN

the M.P.I. and the M.H.Q. were significantly higher in psychiatric cases than those of non-psychiatric cases. On the contrary, the mean score of Extraversion of the M.P.I. was significantly higher in the non-psychiatric cases than that of the psychiatric cases. Significantly high correlation was found between the scores of Neuroticism of M.P.I. and that of M.H.Q., and also between these two scores and the students' self-rating of their health. The follow-up study in the senior year showed the high reliability of the students' attitude toward these questionnaires and their stability in validity and reliability. These findings are apparently in support of the high reliability and validity of these two questionnaires and of the self-rating of single health questionnaires in psychiatric case-finding and even in case prediction. It was interesting to find that those who showed high scores of Neuroticism on the M.P.I. and M.H.Q. during the freshman year ultimately became psychiatric cases at the second survey (senior year), though they did not show apparent psychiatric signs and escaped from the case-finding by individual interview in the first survey.

IV. Activities in prospect. The services for mental health problems of the student as an integral part of the total health activities of a college are still in the infant era in Taiwan. Though a testing or guidance center for students has been established in several universities in several universities in recent years, the work has been mostly limited to a study of the applicability of some psychological tests on Chinese students, with limited functions in individual guidance or counseling. Again psychological tests have been used as main tools and methods in understanding of the students' problems, and little attempt has, in general, been made to treat or to assist in the solution of students' problems with psychotherapeutic approaches - individual or group. Except in the National Normal University, the functions of these centers have been isolated from the total mental health services of the school. Whether the programs for student mental health can be better served at the student health center or at these psychologically oriented testing or guidance centers is a subjective matter for each school to decide, depending on various factors such as: conceptual orientation, availability of personnel, budget, number of students to be served, and so on. It is, in any case, of the utmost importance to establish a working system or scheme, a practical and effective workable system within each school which can mobilize the full available resources including different disciplines in or outside of the campus and also integrate all these resources and works into functional programs.

The establishment of concerned departments for the intensification of training programs for more qualified personnel is also an urgent need presently in Taiwan. The students should be educated and well motivated to realize the importance of mental health problems and to make the best use of the available services in the school. The findings from various studies, as mentioned in the previous sections, should be well utilized in the actual programs for student mental health problems especially in psychiatric case-finding and case-prediction. These programs can begin as early as the very beginning of college life.

What are the areas for future study in student mental health? Since the scores of M.P.I. and M.H.Q. and simple self-rating type of health questionnaire were found to be highly related to psychiatric case rates, perhaps we may be able to find some relationships between the social, cultural and environmental factors and the high scores on these questionnaires, if we analyse these scores in relation to all background variables. We did say that freshman mental health problems were related to individual experiences and health status before college. Then the question will be how the students with what kind of life background react in what way with what kind of experiences in college, and whether or not the students with certain life backgrounds seemed to be more vulnerable than the students with other backgrounds. These the author would like very to see.

The students as a whole rate their health to be better in the senior year than in the freshman year and before entering college. In the long run, college experiences must influence the students' health a great deal. It will be interesting to find what kinds of experiences are related to health and what kinds are related to ill-health. If we are fortunate enough to be able to follow up our samples for five more years, then we would like to see what happens to student mental health status and what is the relationship between the pre-college experiences, college experiences and the health, achievement and adjustment of later life. Nowadays, it is so popular for most of the college graduates to study abroad. Undoubtedly the problems that arise from the cross-cultural adaptation are more sharply experienced by the students studying abroad. We would like to see how the health or adjustment in foreign countries is related to or influenced by the college experiences in one's native country, and also to find out if there is any way to predict later adjustment to new environment by retrospective study of the students' life experiences in the past before their departure. This research has been in process by this author since 1967 in collaboration with the Department of Psychiatry of the University of Wisconsin.

TAIWAN

the other dimension of the study, which should be given high priority for future research, is the social and psychological aspects of personality development of the students in terms of changes in value system, level of satisfaction, ideal ego-image, motivation, opinions in general and formation of "identity." Interdisciplinary collaboration with sociologists and psychologists is badly needed for this study.

Bibliography

- Cheng, F.M.; An Appraisal of Psychology of Chinese Youth"(Chinese), Psychological Testing, Vol.IV, pp. 32-42, Dec. 1956. (Psychological Testing is published by the Chinese Association of Psychological Testing, c/o Dept. of Educational Psychology, National Normal University, Taipei, Taiwan, Republic of China.)
- Chang, S.S., Hsiao, S.L., Wu, C.H., and Chang, S.; "A Study of Interests of the 1957 Freshman Class of National Taiwan University"(Chinese with English abstract), pp. 85-95, Vol. 1, November 1958, Acta Psychologica Taiwanica, (Published by the Dept. of Psychology, College of Science, National Taiwan University, Taipei, Taiwan, Republic of China)
- Chang, S.S., Hsiao, S.L., and Hwang, P.Y.; "The Interest Patterns of Students of Departments in the Colleges"(Chinese), Acta Psychologica Taiwanica, pp. 43-49, Vol 2, March 1960.
- Chiu, W.C.; "Sex Difference in Level of Aspiration by Ring Throwing Test", Psychological Testing, pp. 56-61, Vol. X, January 1963.
- Chan, Y.H.; "A Study of the Bell Adjustment Inventory, Student Form"(Chinese), Psychological Testing, pp. 39-59, Vol. XI, January 1964
- Chin, R. and Chin, A.S.; "Comparative Evaluation of Aspects of Contemporary Chinese Culture by College Students in Taiwan"(English), Journal of Sociology, No. 1, Dept. of Sociology, National Taiwan University, Taipei, Taiwan, 1965.
- Chiu, W.C.; "A Study on the Social Values of Chinese University Students", Psychological Testing, pp. 45-50, Vol. 14, January 1967.
- Chiu, L.L.; "Personality Differences between Chinese and American Students"(Chinese), unpublished B.S. graduation thesis, Dept. of Psychology, National Taiwan University, 1963.
- Chang, S.S. and Lu, C.Y.; "A Report on the Revision of the Strong Vocational Interest Blank"(Chinese), Acta Psychologica Taiwanica, pp. 1-12, Vol XI, 1969.
- Cheng, F.M., Kao, L.Y. and Chan, Y.H.; A Report on the Personality Test of the Overseas Chinese Students"(Chinese), Psychological Testing, pp. 32-45, Vol. XII, January 1965.
- Hou, F.; "An Analysis of the Correlation of School Subjects Scores"(Chinese), Psychological Testing, pp. 5-10, Vol. VI, December 1958.
- Hou, F.; "The Result of Four Years of Intelligence Testing of Overseas Chinese Students"(Chinese), Psychological Testing, pp. 14-19, Vol. XI, 1964.
- Hwang, C.H.; "A Study of the Personal Preferences of Chinese University Students by the Edward Personal Preference Schedule"(English), Psychology and Education, pp. 52-68, Vol. I, 1967. (Published by the Dept. of Educational Psychology, National Normal University)
- Han, Y.H.; "Responses of Chinese University Students to the Thematic Apperception Test"(Chinese), Psychological Testing, pp. 52-71, Vol. XII, 1965.
- Han, Y.H.; "A Comparison of the Responses of the University Students, Criminals and Psychiatric Patients to the Thematic Apperception Test"(Chinese), Psychological Testing, pp. 14-27, Vol. XIV, 1967.
- Hu, P.C.; "A Study of the Mooney Check List on the Chinese University Students"(Chinese), Bulletin of the National Cheng-chi University, Vol. XV, May 1967.
- Hwang, C.H.; "Reactions of Chinese University Students to Rozenzweig's Picture Frustration Study"(English), Psychology and Education, pp. 37-48, Vol II, December 1968.
- Kao, L.Y.; "The Revised Thurstone Temperament Schedule"(Chinese), Psychological Testing, pp. 35-48, Vol. IX, January 1962.
- Ko, Y.H., Yang, S.K. and Tsai, Y.L.; "The Validity of Ko's Mental Health Questionnaire"(Chinese), Psychological Testing, pp. 34-38, Vol. XI, January 1964.
- Ko, Y.H. and Lin, L.H.; "The Relationship Between Personality and Ordinal Position among University Students"(English), Acta Psychologica Taiwanica, pp. 29-37, Vol. VIII, March 1966.
- Lo, M.Y. and Chien, M.F.; "The Validity of Maudsley Personality Inventory and Its Relation to Social Desirability"(Chinese), Psychological Testing, pp. 29-33, Vol. XI, January 1964.
- Lo, M.Y.; "An Application of Multiple Choice Rorschach to College Students"(Chinese), Psychological Testing, pp. 91-109, Vol. XIII, January 1965.
- Lu, C.Y.; "A Preliminary Report of the Revision of 'MMPI"(Chinese), Psychological Testing, pp. 20-31, Vol. XII, January 1965.
- Leu, W.H., Ko, Y.H. and Chen, W.Y.; "A Preliminary Report of the Tryout of MMPI on the Freshmen of National Taiwan University"(English), Acta Psychologica Taiwanica, pp. 79-84, Vol. VIII, March 1966.

TAIWAN

- Lu, C.Y.; "A Revision of the MMPI for the Chinese People"(Chinese with English abstract), Psychology and Education, pp. 20-36, Vol. I, April 1967.
- Lu, C.Y.; "Revision of the California Test of Mental Maturity"(Chinese), Acta Psychologica Taiwanica, pp. 22-39, Vol. I, March 1968.
- Li, Y.Y.; "Comparative Evaluation of Chinese Culture by Overseas Chinese Students in Taiwan"(English), Bulletin, Institute of Ethnology, Academia Sinica, No. 21, Spring 1966.
- Li, Y.Y.; "Attitudes toward Marriage and the Family Among the Overseas Chinese Students in Taiwan", Bulletin, Institute of Ethnology, Academia Sinica, No. 22, Autumn 1966.
- O'Hara, A.; "Some Indications of Changes in Functions of the Family in China"(English), Journal of Sociology, National Taiwan University, pp. 59-76, No. 3, 1967.
- O'Hara, A.; "Some Problems and Results of Attitude Testing Among University Students"(English), Journal of Sociology, National Taiwan University, pp. 61-70, No. 2, 1965.
- O'Hara, A.; "Comparative Values of American and Chinese University Students in Choosing a Mate"(English), Journal of the China Society, pp. 93-100, Vol. 5, 1967, Taipei, Taiwan.
- O'Hara, A.; "Changing Attitudes Toward Marriage and the Family in Free China", Journal of the China Society, pp. 57-68, Vol. 2, 1962.
- Rin, H., Shih, L.Y., Lee, H.S. and Ko, Y.H.; "A Comparative Study of Psychiatric Symptoms Manifested by Neurotic Patients and College Students"(English), Acta Psychologica Taiwanica, pp. 57-72, No. 3, March 1961.
- Sun, C.W.; "A Comparative Study of Chinese and American College Students on the 16 Personality Factor Test"(Chinese), Psychological Testing, pp. 33-37, Vol. VIII, December 1960.
- Su, H.Y.; "A Report on the Student Counseling Center"(English), Acta Psychologica Taiwanica, pp. 96-98, Vol. VIII, March 1966.
- Tang, S.C. and Chen, F.Y.; "A Comparative Study of Personality in Three Groups of Students in Taiwan"(Chinese), Psychological Testing, pp. 38-42, Vol. VII, 1959.
- Tang, S.C. and Yang, Y.W.; "A General Intelligence Test for Freshmen Students in Tunhai University"(Chinese), Psychological Testing, pp. 26-29, Vol. VII, 1959.
- Wu, M.K.; "A Report on Health Problems of the Freshmen at the Normal University"(Chinese), Bulletin, Dept. of Health Education, National Normal University, Taipei, Taiwan, Vol. 13, 1964.
- Yang, K.S., Lee, P.H. and Yu, C.F.; "The Social Distance Attitude of Chinese Students toward Twenty-five National and Ethnic Groups"(English), Acta Psychologica Taiwanica, pp. 37-51, Vol. 8, March 1966.
- Yang, K.S.; "Need Patterns of Overseas Chinese Students in Taiwan from Different Southeast Asian Countries"(English), Acta Psychologica Taiwanica, pp. 1-23, Vol. 9, 1967.
- Yeh, E.K., Chu, H.M., Ko, Y.H., Lin, T.Y. and Lee, S.P.; "An Epidemiological Study on Mental Health Problems of College Freshmen: A Preliminary Report"(English), Proceedings of the 18th Annual Meeting, World Federation for Mental Health, Bangkok, Thailand, 1965.
- Yeh, E.K., Chu, H.M., Ko, Y.H., Lin, T.Y. and Lee, S.P.; "Some Psychiatric Findings of the College Students in Taiwan"(English), Lecture-Discussion Series, Senior Specialist, Institute of Advanced Projects, East-West Center, University of Hawaii, February 1968, and Transcultural Psychiatric Research Newsletter, McGill University, October 1969.
- Yeh, E.K.; "The Chinese Mind and Human Freedom"(English), to be published in the Journal of the American Ontoanalytic Association.
- Yeh, E.K., Chu, H.M., Miller, M.H., Klein, M.H. and Alexander, A.A.; "A Social Psychological Study of Chinese Students Studying Abroad; A Preliminary Report on Some Psychiatric Findings", presented at the Annual Meeting, Formosan Medical Association, November 1967.
- Yeh, E.K., Chu, H.M., Miller, M.H., Klein, M.H. and Alexander, A.A.; "A Social Psychological Study of Chinese Students Studying Abroad; Who Go and Who Stay", presented at the Annual Meeting of the Formosan Medical Association, November 1969.
- Yeh, E.K.; "Paranoid Manifestations Among the Chinese Students Studying Abroad; A Preliminary Report", to be published in the Proceedings of the Conference on Culture and Mental Health, East-West Center, University of Hawaii, March 1969.