

Child and adolescent psychiatry in the Far East: A 5-year follow up on the Consortium on Academic Child and Adolescent Psychiatry in the Far East (CACAP-FE) study

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Aim: Data pertaining to child and adolescent psychiatry (CAP) training systems are limited as extant research has mostly been derived from one-time data collection. This 5-year follow-up survey collects updated information on CAP training systems in the Far East, allowing for the tracking of system changes over the past 5 years.

Methods: Data were obtained from 18 countries, or functionally self-governing areas, in the Far East, 17 of which were also included in the original study. An online questionnaire was completed by leading CAP professionals in each country. Questions were expanded in the present study to capture the contents of CAP training.

Results: When compared to data from the original study, there has been progress in CAP training systems in the last 5 years. Specifically, there has been an increase in the number of countries with CAP training programs and national guidelines for the training. In addition, the number of CAP

departments/divisions affiliated with academic institutions/universities has increased. Findings from 12 of 18 countries in the present study provide data on clinical contents. All informants of the present study reported the need for more child and adolescent psychiatrists and allied professionals.

Conclusion: Despite progress in CAP training systems over the last 5 years, the need for more professionals in child and adolescent mental health care in all the relevant areas in this region have yet to be adequately addressed. Continued national efforts and international collaborations are imperative to developing and sustaining new CAP training systems while facilitating improvements in existing programs.

Keywords: child and adolescent mental health services, child and adolescent psychiatry, postgraduate training, Far East.

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As of 2017, 26% of the world's population was aged 0 to 14 years, and 50% was aged 0 to 24 years.¹ These numbers increase to 40% and 72%, respectively, among the less developed countries. As most psychiatric disorders emerge in childhood and adolescence – 50% by age 14 years and 70% by age 24 years² – there is an increasing need for child psychiatric services. This is leading to a tremendous unmet need in both developing and developed countries, as reported by the World Health Organization Child and Adolescent Mental Health Atlas.³ Although the Atlas provides valuable perspectives on overall child and adolescent mental health (CAMH) services, it was published more than a decade ago, making it difficult to estimate current challenges with CAMH resources. With continued population growth worldwide projected for the coming decade, there will certainly be an ever-increasing global need for CAMH services, including more clinicians.

Postgraduate training in child and adolescent psychiatry (CAP) plays a vital role in providing the workforce of experienced clinicians and leaders, both of which are required for addressing increasing CAMH clinical needs. Compared with countries in Europe and North America, limited data are available about the CAP training systems in the Far East, one of the most dynamic and rapidly developing world regions, with a very young population.^{4,5} Thus, in order to investigate CAP needs and map training systems in this region, members in the Consortium on Academic Child and Adolescent Psychiatry in the Far East (CACAP-FE), supported by the World Psychiatry Association, Section on Child and Adolescent Psychiatry Group on Teaching and Learning, conducted the first study in 2012.⁵ In the previous study, data from 17 countries or functionally self-governing areas (e.g., Hong Kong and Taiwan) in the Far East revealed overall underdevelopment of the CAP training system despite CAP being recognized as a subspecialty in 12 of the 17 countries/functionally self-governing areas. Since the completion of the first CACAP-FE study, there have been few studies pertaining to CAP training systems in the Far East published: one study from China,⁶ one from Japan,⁷ and one from Singapore.⁸

More recent data on CAP training practices in some Far Eastern countries are available from the Eurasian Child Mental Health Study⁹; however, this study only included six of the 17 countries that participated in the original CACAP-FE study (China, Indonesia, Japan, Singapore, Thailand, and Vietnam). Additionally, findings from the original study were based on sampling at a single point in time. It remains unknown whether and how the overall CAP training systems in this region have changed or improved over time. Accordingly, in 2017, CACAP-FE decided to conduct a follow-up survey on CAP postgraduate training systems in the countries/functionally self-governing areas in the Far East with the aim of updating information on the CAP training system in each country and to track changes in the system in the past 5 years. This 5-year follow-up study allows for examination of factors fostering and hampering the progress in developing postgraduate training systems in the Far East.

Methods

Subjects

In this follow-up survey, the definition of the Far East region was unchanged from the original CACAP-FE study; it includes the following 20 countries/functionally self-governing or specially administered areas: Brunei, Cambodia, People's Republic of China (China), East Timor, Hong Kong (technically a Special Administrative Region of the People's Republic of China), Indonesia, Japan, Lao People's Democratic Republic (Lao PDR), Macau (technically a Special Administrative Region of the People's Republic of China), Malaysia, Myanmar, Mongolia, North Korea, Philippines, Russian Far East Region (Russia), Singapore, South Korea, Chinese Taipei (also known as Taiwan, though not a recognized distinct country by the United Nations), Thailand, and Vietnam. Despite our efforts, however, we were unable to receive any response or obtain data from the following areas: East Timor and North Korea. Leading academic

child and adolescent psychiatrists in the remaining 18 countries were invited to join CACAP-FE via email. When a representative was not available or did not reply to CACAP-FE principal members, we contacted another representative or the national society of general psychiatry or CAP and inquired about collaboration in this survey. CACAP-FE included official CAP representatives affiliated with academic universities, research facilities or specialty societies in all identified countries and areas.

Questionnaires

In the original CACAP-FE study, a 15-item questionnaire regarding CAP training systems was sent to all representatives (Table 1, Table S1); questions about the CAP training program contents were not included as it was assumed that limited numbers of included countries and areas had structured training systems. In the present follow-up survey, questions about contents of CAP training were introduced with the expectations of collecting data to demonstrate identifying progress in the CAP training in several countries in the Far East. The survey questionnaire for this study is in Table 1. Data were collected using this online survey.

Ethics

As information obtained from representatives of participating countries or areas was publically available, ethical approval was not required for the present study.

Results

Representatives from the 18 countries/areas, 17 of which participated in the original CACAP-FE study, agreed to participate in the follow-up survey and to provide information on CAP training systems. Information for this study was provided by the same representatives who contributed to the original CACAP-FE study in 12 out of 18 countries or areas (the remaining six countries or areas included Cambodia, Hong Kong, Macau, Mongolia, Philippines, and South Korea). Information is summarized in Table 2.

Major findings from the present study

The number of qualified psychiatrists reported in the current study varied from 0 in Lao PDR and Macau to 28 000 in China (See Table 2). When these numbers are compared per capita, Japan has the largest number (11 qualified psychiatrists per 100 000 persons). In terms of the number of psychiatrists providing CAMH services, the present study showed the smallest number of 0 in Macau and the largest number of 8000 in China. National guidelines for general psychiatry residency training currently exist in 13 countries/areas. CAP postgraduate training was available in 12 countries/areas (China, Hong Kong, Indonesia, Japan, Malaysia, Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, and Vietnam), and national guidelines for CAP training existed in five countries/areas (Japan, Malaysia, South Korea, Taiwan, and Thailand). Changes in the availability of overseas CAP trainings/electives were made for trainees in Cambodia and Vietnam between the original and the present CACAP-FE studies; trainees in Cambodia and Vietnam can learn CAP in India and Australia, respectively. On the other hand, these opportunities are no longer available in two countries/areas: Singapore and Taiwan (results not shown, but available upon request). All informants from participating countries/areas reported a continuing need for more CAMH specialists and child and adolescent psychiatrists. The number of CAP departments/divisions affiliated with academic institutions/universities varied from 0 to 20. A national CAP society exists in 11 countries/areas (China, Hong Kong, Indonesia, Japan, Malaysia, Philippines, Russia, Singapore, South Korea, Taiwan, and Thailand). Lastly, A national CAMH policy was available in eight countries/areas (China, Hong Kong, Japan, Malaysia, Mongolia, South Korea, Taiwan, and Thailand).

Table 1. Contents of the questionnaire for the 5-year follow-up survey study

1. How many qualified (board-certified) general psychiatrists are there in your country?
2. How many of the general psychiatrists treat child and adolescent populations?
3. Is there a national guideline for postgraduate general psychiatry training? Choose YES or NO.
4. What is the duration of general psychiatry training?
5. Is there any CAP exposure during general psychiatry training? If YES, answer question 5 (a).
- 5 (a) What is the duration of CAP exposure during general psychiatry training?
6. Is child and adolescent psychiatry recognized as a separate specialty (subspecialty)? Choose YES or NO.
7. Is there a specialized postgraduate training program in CAP? If Yes, please answer questions 7(a)–7(i). If No, please skip to question 8.
- 7 (a) Is the completion of general psychiatry training required before entering CAP training? Choose YES or NO.
- 7 (b) Is inpatient child and adolescent psychiatry unit rotation available for trainees? Choose YES or NO.
- 7 (c) Is child and adolescent psychiatry outpatient rotation available for trainees? Choose YES or NO.
- 7 (d) Is consultation–liaison (psychosomatic medicine) rotation available for CAP trainees? Choose YES or NO.
- 7 (e) Is pediatric neurology rotation available for CAP trainees? Choose YES or NO.
- 7 (f) Is general pediatrics rotation available for CAP trainees? Choose YES or NO.
- 7 (g) Is school consultation rotation available for CAP trainees? Choose YES or NO.
- 7 (h) Is forensic training rotation available for CAP trainees? Choose YES or NO.
- 7 (i) Are there exit exams in CAP training? Choose YES or NO.
8. Is there a national guideline for postgraduate CAP training? Choose YES or NO.
9. Are overseas CAP electives available for CAP trainees? Choose YES or NO.
- 9 (a) If YES to question 9, in which countries?
10. Is there a need for more child and adolescent psychiatrists? Choose YES or NO.
- 10 (a) If YES to question 10, what are the estimated numbers of required child and adolescent psychiatrists? Choose YES or NO.
11. Is there a need for more child and adolescent mental health specialists other than child and adolescent psychiatrists? Choose YES or NO.
- 11 (a) If YES to question 11, what are the estimated numbers of required child and adolescent mental health specialists other than child and adolescent psychiatrists? Choose YES or NO.
12. Is there board certification system for child and adolescent psychiatrists? Choose YES or NO.
13. How many qualified (board-certified) child and adolescent psychiatrists are there in your country?
14. How many CAP departments affiliated to universities are there in your country?
15. Is there a CAP society? Choose YES or NO.
16. Is there a national CAP journal? Choose YES or NO.
17. Is there a national child and adolescent mental health policy? Choose YES or NO.

Contents of CAP training

Information related to the contents of CAP training was obtained from 12 countries: China, Hong Kong, Indonesia, Japan, Malaysia, Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, and Vietnam (see Table 3). CAP is recognized as a subspecialty in seven of these 12 countries with national guidelines for CAP training in five of these countries. Among countries/areas where national guidelines for CAP training exist, the duration of CAP training varied from 12 to 48 months. Inpatient and outpatient CAP rotations were the most widely available for trainees (12/12 countries). This was followed by consultation–liaison (10/12 countries: China, Hong Kong, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand), school consultation (8/12 countries: China, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand), pediatric neurology (7/12 countries; China, Indonesia, Malaysia, Philippines, Singapore, Taiwan, and Thailand), forensic psychiatry (4/12 countries; Malaysia, Philippines, Taiwan, and Thailand), and general pediatrics (2/12 countries; Malaysia and Singapore).

Representatives from six of 12 countries/areas (Japan, Malaysia, Philippines, South Korea, Taiwan, and Thailand) confirmed the requirement of a board certification system for CAP trainees following the completion of training. The completion of general psychiatry training is mandatory in nine of these 12 countries or areas (China, Indonesia, Malaysia, Philippines, Russia, Singapore, South Korea, Taiwan, and Thailand). The number of qualified (equivalent to board-certified) child and adolescent psychiatrists in 15 countries or areas

varied from 0 (in Myanmar and Mongolia) to 500 (in China). In some countries, such as Singapore, CAP is not considered a specialty but comes under the overarching specialty of general psychiatry. CAP psychiatrists hence are not necessarily board-certified.

Discussion

This is a report on the 5-year follow-up study to the 2012 CACAP-FE survey. In addition, this survey collected information on CAP training in the Far East. With these data we are able to examine changes in CAP postgraduate training in the Far East across a 5-year span.

Data from 18 countries/areas reveal progress in both general psychiatry and CAP training. The number of qualified psychiatrists and the number of psychiatrists who treat children and adolescents increased in 16 of 18 and 11 of 18 countries/areas, respectively. There was a dramatic increase in the number of psychiatrists treating children and adolescents in China ($n = 2800$ in 2012 and $n = 8000$ in 2017). This change was due to the recent governmental action of emphasizing mental health care and accelerating psychiatry training in China based on a personal communication with the representative of China in the present study.

The number of countries with national guidelines for general psychiatry residency training increased from 11 to 13 countries: Brunei and South Korea both established national guidelines for general psychiatry residency training for the first time.

No changes were reported in the availability of CAP rotations for trainees during general psychiatry residency. Although the

Table 2. Summary of data from the original (2012) and present (2017) studies

Year	No. qualified psychiatrists		No. qualified CA psychiatrists		No. psychiatrists treating children and adolescents		Presence of national guidelines for postgraduate training in psychiatry		CAP is recognized as a discrete specialty		CAP exposure during general psychiatry training	
	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017
Brunei	4	4	NA	1	1	1	NA	Y	Y	Y	N	Y
Cambodia	41	46	NA	NA	NA	12	Y	Y	Y	N	N	N
China	20 808	28 000	NA	500	2800	8000	Y	Y	Y	Y	Y	Y
Hong Kong	300	357	NA	40	30	200	N	N	Y	N	Y	Y
Indonesia	600	850	NA	55	40	55	N	N	Y	Y	Y	Y
Japan	13 534	14 793	NA	316	Most	Most	Y	Y	N	N	Y	Y
Lao PDR	2	0	NA	NA	NA	2	N	N	N	N	N	N
Macau	NA	0	NA	0	NA	0	NA	NA	NA	N	NA	NA
Malaysia	275	360	NA	24	25	NA	Y	Y	Y	Y	Y	Y
Myanmar	80	200	NA	0	80	200	Y	Y	N	N	Y	Y
Mongolia	135	154	NA	0	2	45	Y	Y	Y	N	Y	Y
Philippines	400	400	NA	30	20	Most	Y	Y	Y	Y	Y	Y
Russia	509	486	NA	NA	72	55	Y	Y	N	N	Y	Y
Singapore	150	229	NA	NA	NA	35	Y	Y	N	N	Y	Y
South Korea	2900	3600	NA	400	400	100	N	Y	Y	Y	Y	Y
Taiwan	1400	2018	NA	195	400	21	Y	Y	Y	Y	Y	Y
Thailand	150	750	NA	220	120	250	Y	Y	Y	N	Y	Y
Vietnam	700	900	NA	10	10	30	N	N	Y	Y	Y	Y

Year	Presence of specialized CAP postgraduate training program		Presence of national guidelines for CAP training		Need for more CAMH specialists and CA psychiatrists		Presence of national CA mental health policy		No. academic CAP departments/divisions		Presence of CAP society	
	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017
Brunei	N	N	N	N	Y	Y	N	N	0	0	N	N
Cambodia	N	N	N	N	Y	Y	N	N	0	0	Y	N
China	Y	Y	N	N	Y	Y	Y	Y	15	10	Y	Y
Hong Kong	N	Y	N	N	Y	Y	N	Y	2	2	N	Y
Indonesia	Y	Y	N	N	Y	Y	N	N	0	9	Y	Y
Japan	Y	Y	N	Y	Y	Y	Y	Y	1	10	Y	Y
Lao PDR	N	N	N	N	Y	Y	N	N	0	0	N	N
Macau	NA	N	NA	N	NA	Y	NA	N	NA	N	NA	N
Malaysia	Y	Y	Y	Y	Y	Y	Y	Y	0	4	Y	Y
Myanmar	N	N	N	N	Y	Y	N	N	0	0	N	N
Mongolia	N	N	N	N	Y	Y	Y	Y	0	2	N	N
Philippines	Y	Y	Y	N	Y	Y	Y	N	1	2	Y	Y
Russia	Y	Y	N	N	Y	Y	N	N	0	6	Y	Y
Singapore	Y	Y	N	N	Y	Y	N	N	2	2	Y	Y
South Korea	Y	Y	N	Y	Y	Y	Y	Y	30	20	Y	Y
Taiwan	Y	Y	Y	Y	Y	Y	Y	Y	10	15	Y	Y
Thailand	N	Y	Y	Y	Y	Y	Y	Y	0	10	Y	Y
Vietnam	N	Y	N	N	Y	Y	N	N	0	20	N	N

CAP, child and adolescent psychiatry; NA, not applicable.

number of countries/areas where CAP postgraduate training is available has increased from 10 to 12 countries, national guidelines for CAP training exist only in five out of 18 participating countries/

areas. These latter numbers represent an increase by two (Japan and South Korea) from the original CACAP-FE survey. These numbers would represent overall underdevelopments of CAP training

Table 3. Contents of specialized CAP training in 12 countries

	Is completion of general psychiatry training required before entering CAP training?	Presence of inpatient unit rotation	Presence of outpatient clinic rotation	Presence of consultation–liaison (psychosomatic medicine) rotation	Presence of pediatric neurology rotation	Presence of general pediatrics rotation	Presence of school consultation rotation	Presence of forensic training rotation	Presence of board certification system for CAP
China	Y	Y	Y	Y	Y	N	Y	N	N
Hong Kong	N	Y	Y	Y	N	N	N	N	N
Indonesia	Y	Y	Y	Y	Y	N	Y	N	N
Japan	N	Y	Y	Y	N	N	N	N	Y
Malaysia	Y	Y	Y	Y	Y	Y	Y	Y	Y
Philippines	Y	Y	Y	Y	Y	N	Y	Y	Y
Russia	Y	Y	Y	N	N	N	N	N	N
Singapore	Y	Y	Y	Y	Y	Y	Y	N	N
South Korea	Y	Y	Y	Y	N	N	Y	N	Y
Taiwan	Y	Y	Y	Y	Y	N	Y	Y	Y
Thailand	Y	Y	Y	Y	Y	N	Y	Y	Y
Vietnam	N	Y	Y	N	N	N	N	N	N

CAP, child and adolescent psychiatry.

structures in this region compared with other regions, including Europe and the North America. One study conducted in Europe shows the existence of national training standards for CAP trainees in 27 out of 28 countries.¹⁰ Additionally, in the USA, the core competencies required for CAP trainees are well defined and structured by the Accreditation Council for Graduate Medical Education, establishing national training standards.¹¹

All informants from participating countries/areas reported a continued need for more CAMH specialists and child and adolescent psychiatrists. In some countries/areas, the estimated number of CAMH specialists needed increased from 2012 to 2017, as summarized in Table 2.

There has also been a positive change in the CAP academic environment. More specifically, the number of CAP departments/divisions affiliated to academic institutions/universities has increased in nine out of 18 countries/areas (Indonesia, Japan, Malaysia, Mongolia, Philippines, Russia, Taiwan, Thailand, and Vietnam). However, no major changes were related to the development of national CAMH policy. This is disappointing because policies may support CAMH development.

Increased numbers of general psychiatrists can be a contributory factor to the progress of the CAP training system given that these physicians are the main providers of CAMH services in some countries/areas in the Far East. Although general psychiatrists have sufficient clinical skills and knowledge to care for individuals with mental illness, the extent to which these physicians are experienced in caring for young patients and childhood-onset psychiatric disorders is unclear. Additionally, some psychiatric disorders that have their onset in early childhood, including neurodevelopmental disorders (e.g., autism spectrum disorder, attention deficit hyperactivity disorder) require specific training. Even in countries or areas where the number of general psychiatrists has been increasing, there is a persistent need for child and adolescent psychiatrists and CAMH specialists.

Findings from the present study indicate growth of CAP academic environments. In addition to the increase in the number of CAP departments or divisions affiliated with academic institutions or universities, there was an overall increase in the numbers of CAP professors and the existence of a CAP professional society. These changes in the academic environment will contribute to positive changes in CAP postgraduate training, as a lack of academic infrastructure prevents faculty or senior psychiatrists from engaging in clinical teaching.

In contrast to the original CACAP-FE study, the present survey obtained information about the contents of clinical CAP training from representatives of 12 countries/areas (China, Hong Kong, Indonesia, Japan, Malaysia, Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, and Vietnam) where specialized CAP training is available. Trainees in these 12 countries/areas are able to rotate on inpatient units and outpatient clinics, both of which are considered core clinical settings in the Far East (see Table 3). Consultation–liaison (psychosomatic) training is also essential, especially given the increasing necessity for integrated care (team-based approach where mental health-care and general medical care are offered in the same setting). Towards this end, CAP trainees should have clinical rotations in pediatric neurology and general pediatrics in more of the countries/areas. Lastly, it is encouraging that school and forensic rotations are available in four and eight (respectively) of the 12 countries/areas where specialized CAP training exists; these settings have the potential to reach youth who may not be able to receive traditional inpatient or outpatient CAMH due to limited access, stigma against mental health, or other reasons. Additionally, working with non-medical professionals is an essential skill for CAP trainees, given the interdisciplinary nature of this field and the shortage of trained child and adolescent psychiatrists.

The limitations of this study are as follows. First, some countries included do not have formal CAP training systems, and therefore the provided data might reflect experts’/representatives’ understandings

of current CAP training situations. Second, some informants differed from those in the original study (for Cambodia, Hong Kong, Mongolia, Philippines, and South Korea). This might contribute to the discrepancy in findings at the two time points. However, we contacted each informant and clarified the discrepant data to minimize the risk of data inaccuracy. Additionally, all of the informants who contributed to the CACAP-FE study were familiar with CAP training and CAMH service systems in their countries or areas, and therefore there was reasonable confidence in the accuracy of the information provided. Third, although the updated study was enhanced by new questions on the contents of CAP clinical rotations, further details, such as the modalities of treatment learned, availability of specialty clinical experiences (e.g., autism spectrum disorder, obsessive compulsive disorder), how trainees are evaluated by supervisors, and so forth, were not examined in the present study given that we assumed there would not be adequate data available in this region at the time when the present study was conducted and that extant research conducted in Europe showed a large variability of these data among countries.¹⁰ Fourth, we did not include information about pathways to becoming child and adolescent psychiatrists. This was because we assumed that we would not be able to obtain these data from countries that do not have formal CAP training systems. However, we are aware that there might be some variations in pathways (for example, the completion of pediatric training prior to CAP training instead of the completion of general psychiatry training). Lastly, the questionnaire used in the CACAP-FE study did not reflect trainees' perspectives, including their satisfaction with clinical training.

Despite the limitations, the study highlights the importance of a longitudinal observational research design that allows examination of changes over time. Given limited information about CAP training and CAMH services in the Far East region, the findings from the present study provide valuable information, not only for clinicians and educators who are directly involved in CAP clinical training, but also for decisions-makers. In addition, it seems apparent that more international collaborations are needed to assist countries or areas where little progress has been made over the last 5 years. To our knowledge, no international collaborations with adequate funding have been made since the publication of the original CACAP-FE study; however, we are aware that there is an international collaboration between Norway and Japan, where Japanese professionals engaging in the child and adolescent mental health field have opportunities to visit Norway for learning CAMH systems in Norway and for improving their clinical and research skills. More international collaborations can be achieved through regional or international CAP meetings. To this end, CAP associations, such as the Asian Society for Child and Adolescent Psychiatry and Allied Professions, the International Association for Child and Adolescent Psychiatry and Allied Professions, and the World Psychiatric Association Child and Adolescent Psychiatry section are good resources. As discussed in the original CACAP-FE study,⁵ the authors are aware that countries/areas in the Far East are heterogeneous with diverse backgrounds in culture, religion, economics, and systems of mental health care. Therefore, while emphasizing the necessity of providing evidence-based education and clinical training for young professionals who wish to be leaders in CAP, it is equally important to provide culturally tailored information. Additionally, the definition of psychiatry, CAMH service, and national CAMH policy vary among countries/areas included in the CACAP-FE study, and thus caution should be exercised in interpreting the data that the present study provides.

We hope that the present study will stimulate future collaborations among countries/areas in the Far East and assist them in improving the overall quality of CAP training in this region.

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Disclosure statement

The authors declare that they have no direct conflict of interest that is related to the content of this study.

Author contributions

All authors contributed to the conception and the design of the study and to the acquisition and the analysis of data. T.H. drafted the manuscript and tables, and A.G., N. Sartorius, B.L., and N. Skokauskas provided input on the drafted manuscript.

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Supporting information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Table S1. Questionnaire used in the original survey in 2012.