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**TOWARDS A BETTER UNDERSTANDING OF
PHYSIOTHERAPY EDUCATION AND PRACTICE IN
GERMANY**

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Towards A Better Understanding of Physiotherapy Education and Practice In Germany

INTRODUCTION

The strategic priorities of the Canadian Alliance of Physiotherapy Regulators (The Alliance) for 2003-2005 included conducting research about the physiotherapy education and practice in Germany.

In June 2003, representatives from The Alliance met with educators, professional association representatives as well as government officials.

This paper is based on the findings from the meetings and on additional information forwarded to The Alliance in the summer of 2003, fall of 2004 and winter of 2005 to further describe the physiotherapy education and practice in Germany.

BACKGROUND

The Alliance is the federation of provincial and territorial physiotherapy regulatory bodies. One of the services provided to most of the physiotherapy regulatory bodies in Canada is the credentialling program.

The credentialling program looks at the education and practice of applicants to the Physiotherapy Competency Examination to determine if their education is substantially equivalent to that of a Canadian educated physiotherapist.

The assessment determines if applicants have a general education that allows them to continue with university level education and further determines if they have graduated as a physiotherapist from a recognized university in their home country. Applicants must have graduated from a program consisting of at least eight semesters, six semesters of which must be in a physiotherapy program. They must also be eligible to practice as a physiotherapist in their country of education and be fluent in either English or French. Included in the assessment of educational credentials is an applicant's demonstration of knowledge of physiotherapy practice in the Canadian healthcare context.

The Alliance received numerous applications annually from applicants who completed their physiotherapy education in Germany. These applicants did not meet The Alliance's minimum credentialling requirements such as level of education, research, differential diagnostics, independent and evidence based practice. In October 2003, strategic priorities for 2003-2005 were reviewed at The Alliance Annual General Meeting and these included conducting research on physiotherapy education and practice in Germany.

The Alliance credentialling staff initiated correspondence with German officials in November 2003. Meetings were then arranged in May 2003.

QUESTIONS AND ISSUES OF INTEREST

It was determined that in order to have a better understanding of physiotherapy education and practice in Germany, information was required to facilitate further examination of their programs. In preparation for the meeting with German officials, questions and issues of interest were identified based on the accreditation standards for Canadian academic programs in physiotherapy.

METHODOLOGY

Previous Work

The Alliance Credentialling staff had an understanding of the German physical therapy education that came from many sources including the following:

- ❖ Correspondence with the Canadian-based educational credential assessment agencies;
- ❖ Correspondence with Ministry of Health and Ministry of Education officials in Germany;
- ❖ Correspondence with several directors of physiotherapy education programs in Germany
- ❖ The Best Practices II and III projects; and
- ❖ A document published by World Confederation for Physical Therapy (European Region): Post Basic Physiotherapy Education (February 2001).

Previous Work - Source Materials for Profiles of Physical Therapy in Other Selected Countries

As part of the Best Practices II project, a working document was prepared by Rodger Cummins in collaboration with Lesley Bainbridge entitled 'Source Materials for Profiles of Physical Therapy in Other Selected Countries' specifically regarding the existence of an occupation or professional called physiotherapy in Germany.

Although it was not possible to conduct a thorough comparative analysis of the physiotherapy education and practice in Canada and Germany due to lack of information at that time, the paper provided knowledge and information for comparing the educational credentials presented by individuals educated in this country.

The following is extracted from that paper in order to provide background information to the reader about The Alliance's understanding of the physiotherapy education and practice in Germany prior to the site visit and subsequent research:

General Observations

There is a distinct and regulated occupation in Germany called "physiotherapeutin". It appears to be regarded as 'professional' under the federal laws, but we have no information on how it ranks with other professions.

Polity

There is a federal law which regulates practicing in the professional capacities of Masseur, Masseur and Medical Spa Superintendent and Physiotherapy. This law was written in 1958 and amended in 1969. Lander or state health authorities authorize persons who have met the requirements of the law to hold the professional title of Physiotherapeutin. There is an association of physiotherapists, the Deutscher Verband Fur Physiotherapie. It is not clear what role this association plays in the regulatory process.

Education and Training Required by Profession

There are government regulations which prescribe the practical training and examinations for physiotherapists (These regulations, made in 1960, are pursuant to Federal Law Gazette 1 Page 865 and were amended in 1971 pursuant to Federal Law Gazette 1 Page 847). These laws prescribe the syllabus for the training for physiotherapists.

Measurement and Assessment of Readiness to Practice

The regulations include an examination which is administered by the Lander or state authorities and state health administration authorities authorize persons who have met the requirements to hold the professional title of Physiotherapeuin pursuant to the Grund des masseur-und Physiotherapeutengesetzes.

In addition, the paper provided information on general educational system as well as professional education in physiotherapy.

Previous Work - Best Practices II

As part of the Best Practices II project and based upon an analysis of physiotherapy professional regulations as well as the content and structure of physiotherapy educational programs, a system of classifying countries of education was developed. Countries were classified into four categories:

- Category I: Countries with no organized and recognized profession;
- Category II: Countries where the profession, by nature, scope and regulation, is very similar to the profession in Canada but differs with respect to professional autonomy. There are differences in the general, pre-professional education and content of professional programs are somewhat similar;
- Category III: Countries in which the profession is very similar to that in Canada, but education takes place in institutions which do not have original research as part of their mandate;
- Category IV: Countries in which the profession is very similar to that in Canada, and education takes place in universities, which have a mandate to perform original research

It was noted that, although the physiotherapy profession in Category II countries bears many similarities to that in Canada, the educational programs lack some of the elements that reflect the Canadian standards and requirements, and there is evidence that both German education and practice conform to strict, government-mandated quality assurance measures relating to curriculum and dependent practice. It was also noted that the institutions that provide professional education are not *post-secondary and therefore* applicants have less general and pre-professional education than their Canadian counterparts.

Germany was classified as a Category II country. It was noted that German educational programs do not prepare practitioners to become competent in making a physiotherapy diagnosis reflecting scientific evidence and critical decision-making. This was noted as a primary concern.

Site Visits

The following representatives from The Alliance were present at all the meetings in Germany:

Susan Glover Takahashi, Executive Director
Lesley Bainbridge, Accreditation Council of Canadian Physiotherapy Academic Programs (ACCPAP)
Tabasom Eftekari, Manager, Credentialling Operations

The first meeting was scheduled on June 2, 2003 at 9 a.m. at the Ministry of Health in Bonn, Germany. Present at that meeting were:

- ♦ Ms. Annette Storsberg, Ministry of Health (Ministerialrätin Bundesministerium für Gesundheit und Soziales), Department Councilor
- ♦ Ms. Birgit Kienle, Referat Aus, Fort und Weiterbildung, Deutscher Verband für Physiotherapie Zentralverband der Physiotherapeuten/Krankengymnasten (ZVK) e. V., Department of Education
- ♦ Mr. Heinz Esser, Director, Deutscher Verband für Physiotherapie Zentralverband der Physiotherapeuten/Krankengymnasten (ZVK) e. V
- ♦ Ms. Andrea Becker, Councilor Assistant, Ministry of Health
- ♦ Mr. Herr Sers, Ministry of Health

The second meeting was scheduled on June 2, 2003 at 2 p.m. at School of Physiotherapy, (Medizinische Einrichtungen der Heinrich – Heine – Universität Düsseldorf - Schule für Physiotherapie), Düsseldorf, Germany. Present at that meeting were:

- ♦ Ms. Renate Kropp Olbertz, Director, Physiotherapy program
- ♦ Mr. Andreas May, Vice Director, Physiotherapy program
- ♦ Ms. Regine Schmidt, Physiotherapist, Instructor, Physiotherapy program
- ♦ Mr. Guido Meyers, Physiotherapist, Instructor, Physiotherapy program (Electrotherapy)
- ♦ Ms. Petra Wörösch, Physiotherapist, Physiotherapy program

Documents considered

The following documents were considered in determining if further research on physiotherapy education and practice was required:

- ❖ A discussion paper prepared by Susan Glover Takahashi, Dianne Millette and Tabasom Eftekari on “Exploring Issues Related to the Qualification Recognition of Physical Therapists” for presentation at the World Confederation for Physical Therapy 15th Annual Meeting of the General Assembly in June 2003.
- ❖ Information on an upgrading program offered at Hogeschool van Arnhem en Nijmegen in the Netherlands for fully licensed physiotherapists from Germany leading to a Bachelorsdegree

Approach taken

In order to better understand the education and practice of physiotherapy in Germany, open-ended interviews were conducted. The type of questions discussed were:

The program and Its Environment

- Is the program offered in a fully recognized university? If so, under whose authority does the program fall?
- How is the program connected to the physical therapy professional association, regulators and the PT community?
- What are the qualifications required by the program head / director?
- How is the program financed?
- What are the learning resources available to students?
- How is the curriculum developed and revised and by whom?
- How is clinical education organized? How many hours? What mix of experiences? Quality of sites?
- Could they, upon graduation, practice in other European Union countries? Any limits, exceptions? Any country they can not practice in?

Faculty

- What are faculty members' main responsibilities?
- How is faculty research and other scholarly activity supported?

Students

- How is student performance evaluated in the academic and in the clinical setting?

Program Evaluation

- How is program planning undertaken?

Accountability Evidence

- What information is available to prospective students?
- What is the admission process?
- How are admissions decisions made and by whom?
- What documents should we look for / request when evaluating files?
- What documents need to be submitted for practice?
- Can the license to practice be revoked? If so under what conditions?

Physiotherapy Competencies

- How is evidence incorporated into the curriculum?
- How is autonomous practice taught and reinforced?
- How is professionalism taught and evaluated in the academic and clinical setting?

GENERAL INFORMATION

The Federal Republic of Germany (Bundesrepublik Deutschland), in short Germany, is located in the heart of Europe and it is the most densely-populated country in that continent.

Germany is a democratic and socially responsible federal country. The nationwide constitutional order of the Basic Law is expressed in the country's constitutional bodies, in the country's federalism, in the legal order and in the electoral system. These determine not only everyday political routine, but also the lives of the people in Germany.

Ranking third in terms of total economic output, Germany is one of the world's leading nations and places second according to the World Trade Organization.

Flag and Coat of Arms



Map



Location

Germany is located in central Europe, bordering the Baltic Sea and the North Sea, between the Netherlands and Poland, south of Denmark.

Map references: EUROPE



Area

The sum of all Germany's lands and water equals to 357,021 square kilometer (sq km) with a total land of 349,223 sq km. The sum of all water surfaces delimited by international boundaries and/or coastlines including inland water bodies such as lakes, reservoirs, rivers equals to 7,798 sq km.

Land boundaries

Germany has total land boundaries of 3,621 km and shares borders with nine countries: Austria, Belgium, Czech Republic, Denmark, France, Luxembourg, Netherlands, Poland and Switzerland.

Population

83,431,390 with 66.7% of population distribution between 15 and 64 years of age

Government:

Germany is a constitutional democracy in which power resides within the states unless specifically delegated to the federal government. As a result, primary responsibility of education rests with each state and the cultural sovereignty (Kulturhoheit) of each state is a fundamental principle of the constitution.

Länder (States)

Germany is a federation of 13 states called Länder (singular Land) and 3 free states called Freistaat (singular - Freistaat). Unofficially these are called Bundesländer (singular Bundesland or German federal state). Each Land is represented at the federal level. Each State is divided into counties and grouped into administrative districts.

The 16 Bundesländer (states) of Germany are:

State	Capital City
1. Baden - Württemberg	Stuttgart
2. Freistaat Bayern	München (Munich)
3. Berlin	Berlin
4. Brandenburg*	Potsdam
5. Freie Hansestadt Bremen	Bremen
6. Freie und Hansestadt Hamburg	Hamburg
7. Hessen	Wiesbaden
8. Mecklenburg-Vorpommern*	Schwerin
9. Niedersachsen	Hanover
10. Nordrhein-Westfalen	Düsseldorf
11. Rheinland-Pfalz	Mainz
12. Saarland	Saarbrücken
13. Freistaat Sachsen*	Dresden
14. Sachsen-Anhalt*	Magdeburg
15. Schleswig-Holstein	Keil
16. Freistaat Thuringen*	Erfurt



*Part of former German Democratic Republic

Official Language

Although the law specifies the official government language as German, it does not stipulate an official language of instruction for educational institutions though the predominant language of instruction is German. Within higher education schools, a few classes may be taught using other languages such as English.

German Reunification

October 3, 1990 marks the reunification of Germany. Once again Berlin became the capital of Germany, although the educational ministry and related organizations are in Bonn.

A comparison between education in the former East and West Germany

East	West
❖ Centralized	❖ Decentralized
❖ Subject to strict control of the Socialist Unity Party (according to Marxist-Leninist principles)	❖ Democratic
❖ Educational policy closely tied to state central planning of the economy	❖ Each state enjoyed cultural pluralism and sovereignty
❖ 15% of students attended a universities	❖ 50% of the same age cohort entered universities
❖ Research conducted in non-university institutes or academies while universities were responsible for teaching	❖ Teaching and research were considered fundamentally inseparable

Unification of the educational systems

In the summer of 1990, the Science Council under the provisions of the Unification Treaty and approval of both East and West Germany, started working on the educational re-unification process. The work that was completed in 1991 and published in 1992 is summarized in a four-volume report titled *Empfehlungen zur künftigen Struktur der Hochschullandschaft in den neuen Ländern und im Ostteil von Berlin* (Recommendation on the Future Structure of Higher Education in the New States and in the Eastern Part of Berlin). The report includes recommendations for amalgamating the higher educational systems. It is worthy to note that most of the recommendations have been implemented and changes in the East have served as a stimulus for educational innovations throughout the country.

Educational Authority and Administration

The constitution does not specifically assign responsibility for education to the federal government therefore the state governments are responsible for education. Each state therefore has the legal right to exercise responsibility for education based upon its own values (e.g., cultural, social, political values).

Conferences

As noted, each of the 16 states has legal responsibility for education within that state. Germany however realizes that there is a national need for educational standards and

comparability to ensure the mobility of students, teachers and professional workers between states.

The 16 members, that are cultural or educational ministers from each state, meet at a conference entitled Cultural Ministers' Conference and facilitate educational and cultural cooperation between states. The coordination and promotion of the common interests of German Universities are the role of the University Rectors' Conference that is a voluntary, non-governmental association of universities. One of their primary functions is informing the public both national and international, regarding higher education in Germany.

International Education

Germany is actively involved in many European Union (EU) initiatives such as SOCRATES, Bologna Agreement and European Credit Transfer System (ECTS). The Federal Ministry of Education, Science, Research and Technology in collaboration with each state is responsible for EU initiatives.

OBSERVATIONS AND FINDINGS DURING SITE VISIT

Physiotherapy education system and documentation

Physiotherapy education and training is at the upper secondary vocational school level. These schools are sometimes called Schools for xxx professional e.g., Schulen für Physiotherapeuten (Schools for physiotherapists).

These schools are state-recognized and directly affiliated to hospitals or clinics, or associated with such institutions. Unlike the traditional vocational schools which use the dual system of education/on-the-job training, these are specialized technical schools within the health care system. Minimal training requirements that these schools must provide are regulated by the nationally applicable Act on the Physiotherapy Professions (federal) as well as the Regulations on the Training and Examination of Physiotherapists

The theoretical or knowledge education is provided at the school and clinical education is provided at affiliated hospitals or in other clinical settings. Thus, unlike the state-regulated Berufsfachschulen¹, medical Berufsfachschulen are regulated under federal law, are supervised by the Bundesministerium für Gesundheit (Federal Ministry of Health), and are administered at the state level by either the Ministry of Health or Education.

The minimum admission requirement for physiotherapy programs is the same as that required to enter a secondary Berufsfachschulen. The admission requirement is completion of either

¹ A Berufsfachschulen (Vocational Technical School) is a special type of Berufsschule that provides both theoretical and practical vocational training within a full-time school setting. This kind of school gives students who do not find an apprenticeship an opportunity for vocational training, and they give employers who are unable to train independently a chance to recruit employees

nine years of primary and secondary education (i.e., the Hauptschule program) plus an additional two years of vocational training prior to enrollment or ten years of secondary level schooling (i.e., the Realschule programs). Students may satisfy the minimum educational prerequisite by age 16. However, there is an additional age requirement of 17 years to enter a physiotherapy program. In addition to academic and age requirements, applicants to physiotherapy programs must be physically and mentally healthy and have no record of conduct that would disqualify them from practicing physiotherapy.

The length of the PT program is three years and is standard in all states in Germany. All PT students must pass a state examination (staatliche Prüfung) once the program is completed. Students may receive three different certificates. The first is a Bescheinigung from the school that allows students to take the state examination. This certificate is not awarded by all schools. The second is a Zeugnis or Abschlusszeugnis der Berufsfachschule (completion certificate of the Berufsfachschule) confirming that the student has passed the state examination. (e.g., Zeugnis über die staatliche Prüfung für Physiotherapeuten (certificate of the state examination for physiotherapists). The third is an Urkunde from state (Staat), or county (Kreis) or from district (Bezirk). This certificate allows graduates to practice the profession. The professional title is recorded on the certificate. The Zeugnis issued by the school indicates that the student has completed the program. The Zeugnis, once issued, can never be revoked. The Urkunde (license) can be revoked by the state due to misconduct or other inappropriate activity such as criminal conviction. Students wishing to practice physiotherapy will be required to submit both a Zeugnis and an Urkunde to secure employment.

Continuing Education for Physiotherapists:

Since training in the Berufsfachschulen does not prepare or entitle students to enroll in a university, continued higher education (at university level) depends upon the original education of the student at the time of enrollment in the PT program. Students who enter with the minimum educational requirement are not qualified for university studies.

Other Information

If a student completes education and training in physiotherapy and then wishes to study another health care discipline (e.g., nursing, occupational therapy, etc.) the second program may be shorter.

Examination of physiotherapy education

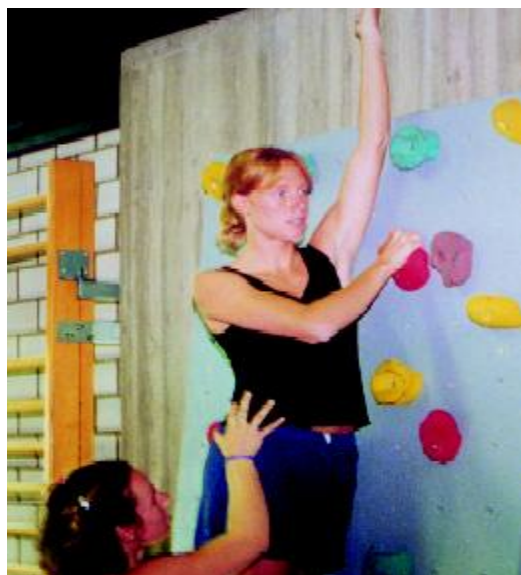
The examination of physical therapy education in Germany was, from the education perspective, framed around the evaluative criteria used for accreditation of Canadian academic physical therapy programs. These criteria and standards have been developed and tested by the Accreditation Council of Canadian Physical Therapy Academic Programs (ACCPAP). The broad areas for consideration are:

- The program and its environment;
- Faculty;
- Students;
- Program evaluation;
- Accountability; and
- Physiotherapy competencies.

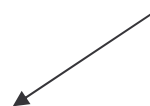
This section of the report will highlight the findings of the review as they relate to broad areas for consideration.

Physiotherapy School visited

The physiotherapy school visited was located in Dusseldorf in the State of Nordehein-Westfalen.



Medizinische Einrichtungen der
Heinrich – Heine – Universität
Düsseldorf - Schule für
Physiotherapie



The Program and Its Environment

No school of physiotherapy in Germany is offered in a university, although the school we visited in Düsseldorf is physically located within a university setting. The general physiotherapy program, or curriculum, falls under the authority of the State. A legislated document requires all German programs to cover all listed curriculum content areas and to provide a prescribed number of hours of study in each of the broad content categories.

The required hours of theoretical and practical training for physiotherapy programs as prescribed by legislation are 2,900 hours of theoretical training and 1600 hours of practical training.

As long as the identified content areas are offered and the total number of contact hours in each broad area meet the legislative requirements, programs have the flexibility to adjust the relative amount of time spent reaching each sub-area and to decide upon the pedagogical approach to delivery of the curriculum. The State legislated curriculum is developed and reviewed by members of the Ministry of Health and Social Service, including a teacher in medical education programs. The profession is consulted by way of the professional association. However, the State curriculum has not been reviewed or revised since 1994.

There is no formal body that regulates physiotherapists in Germany over and above the State. Complaints from clients, for example, could be addressed through the professional association, through the physician who referred the client, or through legal action. A physical therapist found responsible for a major breach of conduct could have their license to practice revoked. Because there is no formal physical therapy body that regulates the profession, there is no close link between schools and such an organization. The professional association appears to have a good working relationship with members of the Ministry of Health and Social Service. The school visited in Düsseldorf appears to have a good relationship with the professional association. It was not clear how much contact existed between the school and the physiotherapy community in Düsseldorf and surrounding area.

The Director of the Düsseldorf program requires a physiotherapy certificate as well as a teacher's certificate and evidence of continuing professional development. At this time a university degree is not required. This appears to be true for all German physiotherapy programs.

The Düsseldorf program is funded via revenue received from health/medical insurance. Approximately 10% of German programs are funded in this way and 90% are funded through direct tuition fees, making the cost of physical therapy education expensive for students.

In the Düsseldorf program, there was adequate space for the 24 to 28 students in each of the three cohort groups. The rooms were well furnished and there was adequate equipment including electrotherapy equipment. The school is fortunate to house its own swimming pool for hydrotherapy instructions. Computer equipment is not currently available to the students but the school director hopes to be able to provide a small computer lab within the next year.

There is a small library within the school and students have access to the larger university library system.

The Düsseldorf program is currently very didactic but the Director plans to introduce some problem-based learning into the curriculum and to increase student responsibility for learning. Reflective practice is encouraged and modeled and strong links between theory and practice are evident, although specific theoretical frameworks were not discussed. Clinical reasoning and problem solving skills appear to be evident in the program.

Clinical education is organized by the Director of the school with help from other faculty members. 99% of clinical experience is gained in the hospital system and not in the private sector. Private practitioners have not been willing to provide contexts for clinical learning. Clinical education is offered mainly in the on site clinics during the morning of the second and third years with students returning to the classroom for the afternoon period. There is a four-week period each summer during which students are placed in the clinical settings. The instructors from the program accompany the students to the clinical placements, often having to supervise several students at one time (e.g., 6 students). The method of evaluating the quality of the sites for clinical education was not discussed. The theory and practical components of curriculum are taught prior to clinical placement in each of the placement contexts.

Faculty

There are 6 FTE instructors in the Düsseldorf program (9 individuals) and an average of 24 students in each cohort group. All of the teachers are registered physiotherapists who have completed teacher training programs. No faculty members participate in research but all have computer access to databases to keep up-to-date with research findings. In Germany there are no physiotherapists who are primary investigators for rehabilitation research. It should however be noted that although rehabilitation research is carried out by physicians, physiotherapy and rehabilitation research undertaken by physiotherapists is rapidly developing.

The Düsseldorf program also uses 12 to 15 external instructors to complement the teaching programs. Physicians-Scientists teach anatomy, physiology etc. to the students.

Not all schools in Germany require pedagogical qualifications for faculty.

Students

28 students are admitted to the Düsseldorf program each year and these are chosen from approximately 750 qualified applicants. Those admitted to the program must successfully participate in a day-long process that involves a written exercise, an interview, and group and

manual dexterity exercises. Almost all of the students admitted have completed the Abitur² (A-level equivalent). After 6 months in the program students are required to take examinations and pass them in order to remain in the program. Each year some students drop out at this point. Drop outs often occur due to other career choices or a realization that physiotherapy is not the profession that the students wish to pursue. Students are evaluated through tests, (written and practical) every 2 to 3 months. In addition, they are evaluated on their clinical performance in the clinical setting.

Program Evaluation

As stated earlier the State controlled curriculum is reviewed and revised by the State representatives in consultation with the profession.

Physiotherapy Competencies

Research appears to be incorporated into the program. Students are exposed to research methods and are required to complete a small project such as a literature analysis. Faculty members are required to engage in continuing professional development and so keep up-to-date with the literature

Professionalism is modeled in all classes and the professional association provides each program with a curriculum for teaching professional issues.

Autonomous practice is not taught as it is not the model for practice for physiotherapists in Germany.

FINDINGS AFTER REVIEW OF ADDITIONAL DOCUMENTATION SUBMITTED IN 2003 - 2004.

Reference books submitted by the program were translated by The Alliance. The translated documents were reviewed. The educator reviewing the documentation and translations noted that while the education process observed in Düsseldorf was impressive, there remain concerns about the highly prescriptive nature of the curriculum. Documents are dated 1997, which is now 8 years old. This is alarming given the changing nature of physiotherapy practice over that period of time. There are also concerns that the changing of topic areas from one year to another is "not permitted." The lack of control over curriculum by the educators is problematic, especially if the state curriculum is not reviewed in 7 or 8 years or longer.

The table of contents appears to list an odd balance of subject areas. For example, diseases and hygiene appear to comprise 38 pages, whereas movement education comprises 7 pages and treatment techniques 15 pages. The difference between physiotherapy treatment techniques and physiotherapeutic applications is not clear.

² The Abitur Examination is given after year 13 in all of the German states. Some states have special "condensed" programs in which eight-year Gymnasium curriculum is covered in seven years and the Abitur examination is given after year 12.

When first examining the table of contents, we could not judge the level of evidence-based education nor could we see a clearly defined research component in the curriculum. We then found a course called “Speech and Writing (Language),” for which the bibliography appears to cover basic statistics, literature searches, and evidence-based practice. We cannot judge from the documentation how this content is taught nor how it is integrated into the curriculum as a whole. The emphasis in the course appears to be on report writing and gathering data, which are only 2 components of the much broader context for evidence-based practice.

The section/course on “Physiotherapy Findings (Diagnoses) and Examination Techniques” was very difficult to understand in the translation. The translator also commented about confusing language when reviewing the original references. The table of contents suggests an emphasis on assessment and interpretation of findings as well ongoing assessment and re-evaluation of a treatment plan. However, the preface is very unclear. It also reads as though important sections of learning had been deleted: areas such as assessment of the extremities. There is also no explanation of the Human Performance Model in the translated material, consequently it was impossible to determine the equivalency of this model to Canadian models of practice in physiotherapy. The title of the model seems to link more closely to the Canadian occupational therapy/human occupational performance model.

In the section on orthopaedics, the content appears to be driven by conditions rather than theory, principles, problem solving and clinical reasoning. There is no reference to biomechanics, kinematics or kinesiology, for instance. After review of this section it was decided that it would be one section that could better be examined with the aid of more extensive translation.

Extensive translations were completed in summer 2004. Findings following examination of this area of study (orthopaedics) supports our earlier comments: we remain concerned that there is little evidence-based education. In all the sections reviewed, there was no reference to the literature. Also, the textbooks listed are very outdated: one is from 1988 and none of the others was more recent than 1986 with some as old as 1970. The curriculum content in orthopaedics appears very prescriptive with time spent on actual conditions and treatments rather than, to name a few, clinical reasoning, differential diagnosis and critical thinking. Despite the verbal acknowledgement of the importance of research and some attempts to incorporate it into the curriculum, we are not convinced that it meets the necessary standards. We believe the length of study is an issue too but we cannot comment on that from the documents we reviewed.

Furthermore, the Examination Order piece does not clarify the evaluation processes for physiotherapy students, as it relates only to the logistics of the examinations and not to the content

However, that said, it is clear that the B.Sc programs are trying to create programs of study that are comparable to non-German programs. There are increasing signs of the use of words such as clinical reasoning, evidence, professional behaviour, client-centre care etc.

CONCLUSION

The assessment of post secondary educational credentials is a matter of judgment and choice; there are no universal guidelines and different judgments are possible and defensible based on the same evidence; the effect of the choice of the specific credential and the way in which it is implemented, has the effect of devaluing the education and licensing of physiotherapy in many countries which have highly developed and regulated systems of education and licensure.

However this has to be balanced by the obligations of the profession to maintain standards and safeguard the interest of the public of its nation.

While the German graduates appear to be technically competent physiotherapists, their education, in our estimation, is not substantially equivalent to the programs in Canada. Based on our more recent review of the orthopaedic section of the curriculum, we continue to see large gaps especially in the areas of research, evidence-based practice, clinical reasoning, differential diagnosis and critical thinking. We therefore cannot consider the German curriculum as substantially equivalent to the Canadian programs.

The Alliance believes that review of the required physiotherapy curriculum in Germany is long overdue for a revision and, while not suggesting that Canada has the only worthwhile programs in the world, the Canadian physiotherapy educators group along with representatives from accreditation and association bodies could help German government officials and associations with the review of the physiotherapy curriculum that may help address issues that are not substantially equivalent.

RECOMMENDATIONS

We conclude our report with 5 recommendations for consideration:

1. Assuming it is acceptable to the German stakeholders, Canadian representatives participate in a review of the required physiotherapy curriculum; OR
2. Follow up with Canadian programs that have expressed an interest in developing and offering an equivalency program of study; OR
3. Accept individuals who completed the Abitur, a physiotherapy education in Germany, and a program such as the one offered in the Netherlands that addresses some of the described gaps in the substantial equivalency assessment; OR
4. Require German applicants to complete additional general education necessary to meet Canadian pre-professional educational requirements as identified through Prior Learning Assessment (PLA) mechanisms; OR
5. Develop a key features case-based approach that could assess whether German applicants possess the research and scientific inquiry skills required to undertake evidence-based approaches to assessment and treatment.

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