The Centre for Interprofessional Workplace learning in Primary Care

Centre Plan

Mission of the Centre

The *Centre for Interprofessional Workplace learning in Primary Care* (TVEPS) trains final-year health profession students in clinical workplace teamwork for the benefit of patients, students, workplace staff, and participating educational programs. The TVEPS courses were initiated because all stakeholders identified interprofessional work-place cooperation as an area lacking in their current curriculums.

TVEPS focuses on interprofessional training when the participating health profession students have placement periods in primary care. The mission of the Centre is to develop and quality-assure interprofessional workplace training for these students. There is a clear expectation that universities and university colleges train professional personnel to obtain the competencies that the national and local health services need. Much of the work in today's health services is team-based, and health profession students should be trained in interprofessional teamwork. We regard such training as a mutual responsibility of institutions, departments and educational programs. This application is written as a joint venture between the participating partners and supported by students' work.

The mission of the Centre is in line with the strategies of the participating institutions, and in accordance with White Paper 13 (2011-2012); "Education for welfare" from the Ministry of Education and Research, where interprofessional training is mentioned as a prerequisite to educate health care personnel for the future. The Ministry states that the educational institutions must take responsibility for the students developing an identity in a larger health system setting, and highlights the need for coorporation between the universities, researchers and the work place.

Organisation of partners

TVEPS was established by the following partners: (1) the Faculty of Medicine and Dentistry, the Faculty of Psychology, and the Grieg Academy, all at the University of Bergen (UoB). (2) The Faculty of Health and Social Sciences at Bergen University College (BUC), and (3) Fjell Municipality. TVEPS also collaborates closely with the City of Bergen and the Public dental health service in Hordaland.

The Department of Global Health and Primary Care, Faculty of Medicine and Dentistry at the UoB are responsible for administration and management of the Centre.

Both collaborating teaching institutions have well-established and well-evaluated community based practice placements for their students. At UoB the Department of Clinical Dentistry has won a national reward for their placement, and each year 50% of the medical students promote their clinical supervisor for candidate as "the best supervisor of the year". BUC has several interprofessional collaborative learning arenas. HiO-report 2010-5 (Collaborating across boarders (CAB)-project) stated "BUC has a solid foundation for developing competence in interprofessional learning arena and become a centre in interprofessional learning." However, what has been lacking in both institutions is training a broad range of health profession students in interprofessional work-place communication and co-work. Such cooperation is an increasingly important form of work in health services, and may be vital for patients. In regard to this TVEPS constitutes a unique model for interprofessional collaborative workplace learning nationally and as far as we know internationally.

TVEPS is organised as a consortium. Representatives on the vice-dean level from each of the participating institutions constitute the Centre Board. The main duty of the Board is to compose a yearly plan of action concerning economy and direction and volume of educational activities. The leader and the Centre Working Party – the leaders/representatives of all the participating educational programs – function both as a planning force for existing training and a think tank for educational innovation by meeting on a regular basis. The leader and administration keeps pace on the work, and also handles the coordination of the Centre and daily routines.

Process factors: Learning practice, theory, assessment and evaluation

The crystalized purpose of TVEPS is to create communities of practice where all participants learn: students, teachers, patients and health workers at the workplace.

The training system of TVEPS

The main learning arena is community based nursing homes. An interprofessional team may consist of students from for example physiotherapy, medicine, dental hygiene, nursing and pharmacy.[1]

[1] See attachment 3 for a complete list of participating educational programs and persons involved.

The students initially come together at an information meeting, to get to know each other and to plan the subsequent work. When at the nursing home, the students' task is to interview and examine short-term residents together as a team and together write individual treatment plans for each patient. These plans are later discussed with the physician and other staff responsible for the patient. A facilitator guides the students through the practical sides of the work. The students decide how to co-work, how to write the treatment plan, and how to present the plan for the staff. We instruct them to secure the patients' dignity, and to verbalize their work for their teammates. Figure 1 shows a schematic overview of the TVEPS intervention and aspects of student learning associated with each step.

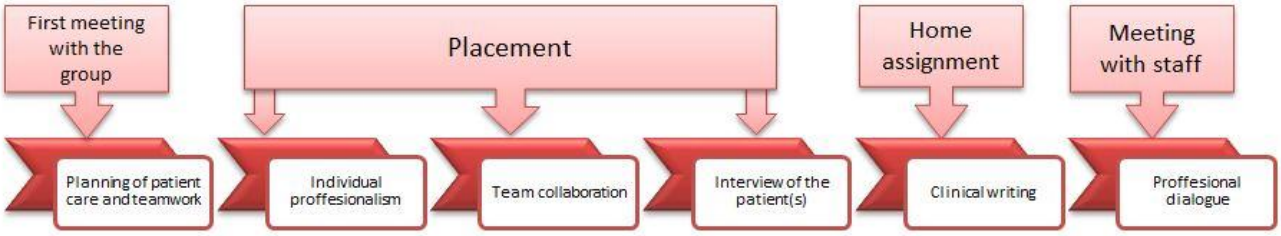

Figure 1. An illustration of the TVEPS model, with the different stages of intervention in pink (above) and aspects of student learning (below).

Assessment

There is no formal, external, summative assessment of the students. However, a formative assessment will take place as the students inadvertently assess themselves and each other (peer assessment) during group work with the patient and through collectively writing out the treatment plan for the patient. The students get feedback on their work through dialogue over the treatment plan with doctors and nurses responsible for the patients.

Theoretical considerations on the learning process

We have created a training laboratory at the clinical workplace. The way our students learn fits well with Morris and Blaney's (2010) central concepts concerning workplace learning:

- Learning takes place as social practices in teams of competent individuals

- Students are legitimate partners within the context of the workplace, and cooperate with patients and staff

- Learning is dependent on the use of language.

The last few years there has been increased awareness both nationally and internationally that students' learn best when they are met with proper feedback (Hattie & Timberly, 2007), when they experience autonomy, competence and relatedness (Ryan & Deci, 2000), when assessment aligns with teaching (constructive alignment) (Biggs, 1999), and when training takes place within communities of practice (Wenger, 1998; Kaufman & Mann, 2012).Taken together, we are witnessing a change of perspective and practice as far as teaching is concerned; from the traditional "transfer of knowledge" towards a perspective where teaching is understood and performed as "participated action". According to the latter, teaching resembles research, and corresponds to Sfard's (1998) "participation metaphor".

In the words of Sadler (2012), TVEPS has adopted a student-centered approach to teaching. As shown by Trigwell, Prosser & Waterhouse (1999), a student-centered and learning-oriented conception of teaching on the behalf of the teachers encourage students to adopt a deep approach to learning. Within TVEPS, an individual orientation towards understanding is challenged, stimulated and fostered in cooperation with students from other professions.

Prior to the introduction of the Quality Reform, Norwegian Higher Education Institutions were described as "exam giving institutions" (OECD, 1997), with too much focus on exams and control of students at the expense of teaching. OECD recommended that more focus should be on student active teaching and on formative assessment. This was followed up in Government White Paper 27 (2000-2001); the official document unfolding the Quality Reform. In chapter 5 of this White Paper, the need for new ways of teaching is underlined.

TVEPS combines student active teaching, peer assessment and formative assessment within teams of interprofessional students, thus adhering not only to the intentions of the Quality Reform, but also taking into account the ideas and intentions of the National Qualification Framework introduced in 2012.

Workplace learning stimulates the students' self-reflection, in ways that may have impact on several competences (e.g. team-work competence, ability to assess and develop one's own professionalism,

communicative competence) all of which are important for lifelong learning. In addition to supplying students with hands-on experiences from clinical teamwork in real life situations and letting them share knowledge with professionals and patients at different workplaces, TVEPS contribute with experiences that may serve useful in the continuous development of study plans within participating institutions. For example TVEPS may provide examples of cases that can be used as part of the *4-S application activities* implied in a Team-Based learning session.

Evaluation

The evaluation in TVEPS consists of: a) students' reflection notes describing their perceived learning outcome, b) group interviews with the students after they have completed the program, c) interviews with nursing home staff and patients, and d) direct observation of the process by TVEPS representatives. The Centre Working Party discusses feedback from students, patients and staff; whereupon the intervention is adjusted and new actions are decided upon. Quality assurance changes are communicated to students and to all stakeholders, orally and through the UoB Quality Base. A program evaluation for 2012 – 2013 can be found in attachment 6. The evaluations also provide data for more in depth research on the outcomes of the program (see "Research" below).

Social accountability

The Centre takes responsibility for its social accountability on three levels. a) The students work in real-life settings, such as nursing homes and health centres, and serve these arenas, the communities and the patients with their collective competence. b) Representatives from the communities are included in the Centre, and c) we serve the intentions of the National health system by training future health professionals in interprofessional work.

Research

Eight staff members from the participating institutions constitute a *Subgroup for research*. Available data and outcomes are used for planning purposes and are written up for publishing in international peer reviewed journals. One main research theme so far has been to elucidate aspects of the students' self-reported learning, using qualitative methods. Results have been presented internationally at relevant congresses on education. The group wishes to encourage student

research and has recruited two medical students as part of the research team, and two pharmacy students have presented TVEPS at a national pharmacy conference. See Work Package 1 (under "Visions and strategies") for further plans for research.

Outcome factors

Facts and figures

Since the course was first piloted during the spring semester of 2012, 110 healthcare students from 14 different healthcare professions have participated. The main bulk of these (71 students) have had their placements in one of the six participating nursing homes. Other settings that have been visited include general practitioners' offices, a prenatal care setting, a youth health clinic and a physiotherapy treatment centre.

Outcomes for students

In reflective essays and focus group interviews students report their learning along five axes:

- They learn to recognize the skills and knowledge of other health professions
- They report development in team communication
- They are trained in describing their clinical case-based knowledge to other health professionals
- Being the only representative for their profession on the team, teaches them to take individual responsibility
- They recognize the synergistic effects of working as a team and the increased quality of care this brings for patients

Long term intended outcomes on future professional behaviour will be a focus of future evaluations and research

Outcomes for patients and nursing homes' staff

Student groups are able to spend a considerable amount of time with each patient, and can thus do an in-depth analysis that gives valuable feedback to the nursing home staff which in turn benefits the patients. Nursing homes seldom have access to such broad range of professionals, and feedback from staff shows that the students provide valuable input on patient treatment.

Patients find it meaningful to participate in securing the professional quality of young health professionals for the benefit of future nursing home residents. Our observations have revealed that the participating students in one case correctly stopped an on-going pharmaceutical intoxication of a patient, thus probably saving the patient's life. In other cases the students identified a new case of diabetes. Patients also state that they are delighted to receive attention from a team of young persons!

The nursing home staff report that the students' treatment plans also are used in a more general manner, as a part of internal education. The knowledge they gain reveals potential for improvements of existing procedures and has been used to improve institutions' routines. In one case the report from a TVEPS-group formed the basis for improving the dental hygiene routines of a nursing home department. In general, Norwegian nursing homes are underpowered in knowledge resources and more student educational activities in nursing homes have been advocated. Fjell community states that they regard TVEPS's work as being a part of the quality assurance of their health services and of their recruitment policy.

Outcomes for the educational institutions

The establishment of TVEPS gave the participating educational institutions an arena for exchange of experiences and expertise on how student placements are performed that had not existed earlier. We will continue to explore the benefits. TVEPS in turn has benefitted greatly from the fact that each teaching program actively contributes with ideas and feedback.

Input factors

The TVEPS partners have put their academic, pedagogical and managerial competences together in securing that the interprofessional training system offered to the students is in line with contemporary research on how people learn (see *Theoretical considerations* above). All participating institutions have allocated considerable work forces for TVEPS, see attachment 2 and 3 on finances, budget and persons. The participating institutions support TVEPS at this initial stage to keep the present work going. Additional economic support will enable up-scaling and further development.

Innovation and dissemination

As the first step in a dissemination process of our training system, TVEPS has approached all governmental health profession institutions in the Bergen area and incorporated them as co-workers. The deliberately designed administrative structure lets the Centre Working Party function as a place for dialogue between the educational leaders/representatives of each educational program's placement in primary care. Through this dialogue new ideas on development of TVEPS emerge. As an example, this autumn we plan to let teams of students who have participated in TVEPS communicate their experiences to students who did not participate in the training. Another example of internal dissemination is our agreement with the Faculty of medicine and dentistry's international exchange office to offer team participation in pregnancy health clinics to foreign exchange students that participate in the Faculty's term of gynaecology and obstetrics.

We have presented TVEPS frequently in regional and national educational meetings. A representative of TVEPS is member of the national CAB-collaboration. We have communicated with other medical and health and social science faculties in Norway for mutual exchange of ideas on interprofessional training and for possible collaboration.

The Program of Pharmacy made participation in TVEPS training mandatory for their students in 2013. These students are spread all over Norway during their placement training. This inspired us to establish team training with institutions geographically near to the pharmacy students' placement. As a result we trained a team at Dønna nursing home in collaboration with Nesna University College and the Helgeland Hospital in Sandnessjøen. We also have established similar co-work with Haugesund/Stord University College, training teams in a local nursing home. These University Colleges regard the present co-work as valuable and intend to continue the collaboration.[2] We thereby aim to inspire the schools to work out their own interprofessional training. We have also established training laboratories in General Practice in Kristiansand and are currently working on establishing training groups in Oslo. Our experiences with creating training groups in distant institutions are good as long as the communication and information given is sufficient. The training model of TVEPS seems easily adoptable and we look forward to share our training model with new universities and university colleges.

[2] See attachment with letter of intent from HSUC.

Internationally we have recently started collaboration with the Centre for interprofessional practice at the University of East Anglia (UEA) in research and education; see Work Package 1 and 3. We have also presented TVEPS in a collaborative meeting with GP colleagues in Groningen, NL. Researchers from TVEPS have presented results on posters at international congresses (EAFP – European Association of Faculties of Pharmacy - & AMEE – An International Association of Medical Education). At the end of May 2013 a representative for TVEPS will be presenting our model as an oral communication at the international workshop entitled "Improving Patient Care Through Collaborative Practice", held by the European Society of Clinical pharmacy.

We have recently joined an application for a COST action on Interprofessional training, in co-work with similar milieus in eight European countries. If this application is successful, potential for new innovations will appear. Many of the collaborators train their students in simulated surroundings, using simulated patients, while we in TVEPS focus on real-life workplace training. The didactical interface between the two training methods its assessments and evaluation remain to be explored.

Visions and Strategies

Increased resources will give us the possibilities of the following visions and strategies.

- Within five years TVEPS will involve all health professional students in the collaborating institutions in some form of interprofessional training, in close collaboration with relevant institutions nationally and internationally.

- Through close coupling of evaluation and research TVEPS will in five years become a learning and dynamic Centre in workplace team education.

Further development will strategically be canalised through four work packages:

Work Package 1 – Research and professional development

Research on teaching and learning in Higher Education with special focus on a) How do patients benefit by the students' work? b) How may quality in practice be further developed? c) Students' professionalism: How do students from different health professions learn and develop professionalism in interdisciplinary teams? Further, we intend in collaboration with scholars at UEA to participate in their work on an instrument for measuring effects of team development. We also

plan in collaboration with the applicants behind the COST application to elucidate the interface between simulated and workplace learning for interprofessional teams.

Work Package 2 – Quality assurance and development

Work package two will focus on how we may optimise optimise course evaluation by applying own and others research results for quality assurance of existing and new learning interventions. Our aim is to involve all professional students of the collaborating institutions in some form of interprofessional training. We will also investigate the feasibility of extending the duration of the interprofessional learning interventions. We will as a part of the Unit for learning at the Faculty of Medicine and Dentistry aim at developing TVEPS to be a motor for pedagogical development. In this we will seek cooperation with the Department of Education at the University of Bergen and the Centre for Educational Research at Bergen University College.

Work package 3 – International collaboration

We have already started to build an international network with the aim of establishing cooperation towards research and educational development. This will be developed further as a part of Work Package 3. Other international collaborators will be strategically approached for mutual development. We also aim to develop bilateral exchange systems for teams of students.

Work Package 4 – Dissemination

We see the possibility of including students from other professions; e.g. social worker students or law students. We know from experience that the training methods we use are readily adaptable, and we look forward to collaborate nationally with other educational institutions. Inviting colleagues from other parts of the country to participate in internal training seminars for teachers and nursing home staff is one option. We will continue to present our work at national and international meetings and congresses, and also host yearly seminars/congresses on interprofessional training with the intention to spread our knowledge and experience and inspire others to start up with their own interprofessional training programs.[3]

[3] See Milestones in appendix 1