

Clinic for Rehabilitation and Disability Psychology: A PBL-based Master Degree Programme for Psychologists

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ABSTRACT

Problem-based learning (PBL) is widely recognized as a pedagogical approach across disciplines. However, the relevance and application of PBL in psychology has received limited attention. Therefore, this article presents a PBL-based master degree programme for psychologists. The article is divided into three sections. First, we present the rationale and need for developing this programme. Second, the programme curriculum is described in detail and, third, the programme's practical and theoretical aspects and potentials are discussed in light of PBL principles.

BACKGROUND

The field of Rehabilitation Psychology advances the psychology of disability, chronic illness, and whole person functioning, in the context of the environment and community. The idea of rehabilitation psychology is to improve the lives of individuals with disability and chronic illness across the lifespan and within and across a wide range of settings (e.g., medical, inpatient/outpatient, home). It rests on, but expands from, the more established but narrower biomedical model of rehabilitation. As such, rehabilitation psychology, provides services with the goal of increasing function and quality of life for persons with disability and chronic health conditions that limit activity and restrict social participation. In the US, rehabilitation

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psychology has been an established field within psychology for more than 50 years. The American Psychological Association defines Rehabilitation Psychology as:

“A specialty area within psychology that focuses on the study and application of psychological knowledge and skills on behalf of individuals with disabilities and chronic health conditions in order to maximize health and welfare, independence and choice, functional abilities, and social role participation across the lifespan.”

(<http://www.apadivisions.org/division-22/about/rehabilitation-psychology/>).

While some European countries (e.g., Germany, Norway, Sweden and the UK) have integrated this field in psychology, it is yet to be developed in Denmark. Despite calls for a paradigmatic change in Danish rehabilitation, from a sole biomedical focus on individuals with problems to a more coherent bio-psycho-social focus, research (Pallesen, 2011; Hald, 2011; Glintborg & Hansen, 2016) reveals that rehabilitation practice is still mainly based on biological and practical aspects. Our study of clients aged 18-66 years with acquired brain injuries ($N = 82$) and their close relatives ($N = 40$) revealed major psychological problems (e.g., depression, decreased quality of life and identity problems) in both clients and their close relatives (Glintborg, 2015; Glintborg & Krogh, 2015a; Glintborg & Hansen, 2016). While clients and relatives were found to receive physical training and practical support, major psychological problems remained unaddressed (Glintborg & Hansen, 2016). We assume that this is not the case for brain injury rehabilitation only, but for rehabilitation practice in Denmark in general¹. Therefore, based on research that documents authentic psychological problems in practice, we developed the master programme Clinic for Handicap and Rehabilitation Psychology (CHaRe) as a first step towards meeting this need and establishing rehabilitation psychology as a field in Denmark.

THE CHaRe PROGRAMME: A PBL-BASED MASTER DEGREE PROGRAMME FOR PSYCHOLOGISTS

In the following section, we describe the Problem Based Learning (PBL) organised master degree programme CHaRe for psychology students at Aalborg University. PBL and curriculum based strategies can be seen as two different learning paradigms. Curriculum based strategies traditionally rely on instructional design that focuses on knowledge transfer and teacher controlled learning processes. In contrast stand PBL strategies that draw on social-constructivist approaches focusing on providing conditions for students' active construction of knowledge, working with real life tasks, and learning in collaboration with others (Jonassen, 1994).

¹ We also suspect that the problem of overlooking psycho-social sequelae after major injury, and the potentials of psychology for assistance in this area, is probably not limited to Denmark

The use of PBL strategies has increased since it was launched more than 30 years ago. Despite several definitions of PBL, some commonalities can be found across definitions. At its core, a problem-based approach is designed to help students achieve two goals: (1) acquiring a deep understanding of specific content knowledge, and (2) developing problem-solving and higher order thinking skills (Ertmer & Macklin, 2006).

At Aalborg University, PBL has been part of the University's pedagogical profile since the founding of the university in 1974 and this particular version is often referred to as The Aalborg PBL model (Kolmos, Fink & Krogh, 2006). The Aalborg PBL model draws on Critical Theory, especially the work of Oskar Negt (1971) who proposes a renewal of existing education programs. Negt's work is inspired by the concepts of experimental learning and self-regulation. A basic characteristic of the model is that the starting point is the problem, not the curriculum. In addition, there is a strong focus on participant control (e.g., the student chooses the subject for the project), interdisciplinary approach (integrates insight from different scientific disciplines), and project organization (a group of students).

CHaRe is offered to students with a BSc in psychology as a master degree programme at the Department of Communication and Psychology at Aalborg University (AAU). CHaRe aims to prepare and qualify students for future work in various settings as rehabilitation psychologists. The programme spans three semesters plus the master's thesis and is organized partly in relation to curriculum, and partly in relation to clinical practice where students will offer a manual based intervention programme to clients with disabilities (e.g., acquired brain injuries, multiple sclerosis, mental illness, etc.) and their close relatives. The programme was launched in autumn 2015 with 10 students and has expanded to admit 14-16 new students each year.

Overall the four semesters seek to accommodate progression from appropriation (1st semester) → application (2nd semester) → reflection and dissemination (3rd semester) → innovation (4th semester) with regard to Danish rehabilitation psychology.

First semester: Appropriation. During the first semester of the programme, the students participate in various 2-4 day workshops in which basic rehabilitation psychological research, definitions, models, foundations and interventions are taught. The use of workshops corresponds to the PBL understanding of learning, where knowledge is actively constructed by the student rather than passively received from a teacher. In addition, seeing learning as a social and situated process emphasises group work, dialog and situated activities (Bygholm & Buus, 2016).

In terms of content, the programme is rooted in the bio-psycho-social understanding of health represented by the International Classification of Functioning (ICF) (WHO, 2001). The bio-

psycho-social model focuses on the dynamic interaction between the client, relatives, professionals and the community environment (Engel, 1977). It emphasizes the importance of paying equal attention to biological/physical, psychological and social aspects in disabilities and of adjusting rehabilitation efforts to changes in the individual's bio-psycho-social needs.

Therefore, rehabilitation psychological interventions address not only clients' psychosocial needs, but also those of their close relatives. Family interventions must be conducted to meet the changing needs of clients *and* relatives. Rehabilitation psychological interventions address needs of clients and core relatives by beginning with a formal assessment of their current situation (Kennedy, 2012). In the CHaRe programme, we assess both relatives' and clients' quality of life, self-compassion, level of depression and anxiety pre and post intervention. Information or referral is usually the first intervention needed; later, counselling interventions or support groups, which are offered to relatives in the CHaRE programme (clients receive individual support). Support programmes are designed to increase emotional well-being and decrease isolation. Psychoeducational intervention is also a part of the programme, which has shown positive effects on relatives' and clients' well-being in previous research (e.g., Rivera, Elliott, Berry, Shewchuk, Oswald & Grant, 2006).

The interventions taught and used in the programme are primarily based on the so-called "third generation" of Cognitive Behavioural Therapy (CBT) (Arendt & Rosenberg, 2012). All approaches of CBT share the assumption that certain cognitions, emotions and physiological states unwittingly sustain dysfunction; therefore, therapeutic interventions that address these are helpful. What distinguishes the three generations of CBT is, in very broad terms, the stance taken to these problematic internal events: first generation interventions focus on overt behaviour and thus work only indirectly with mental states, second generation interventions aim at eliminating or reducing problematic internal states, and third generation interventions aim at changing the client's stance towards internal states into accepting them without letting them run the show. The latter can be seen as learning a meta-cognitive (or meta-emotional) attitude towards one's own inner states that bears some resemblance to what is taught in eastern meditation practices, and thus mindfulness training is a shared tool in third generation CBT therapies. This approach is advocated as expanding therapy's target from reduction of current symptoms to development of a general skill that requires fewer mental resources for coping with adversity and leaves more resources for activities in which the client finds value, positive commitment and options for fulfilment. Despite serious illness and disability, learning these new behavioural therapies emphasizes empowerment and an increase in skills and behavioural repertoires that may be used in many contexts (Hayes, 2004).

Therefore, students participate in workshops in Mindfulness, Compassion Focused Therapy (CFT), Acceptance and Commitment Therapy (ACT) and in addition, there are also workshops in Narrative Identity (Identity reconstruction) and Animal Assisted Interventions (AAI).

Based on these interventions and the associated research literature, we (in collaboration with the CHaRE students) have developed two intervention manuals (named BackUp!), one for clients and one for their close relatives.

During the *second semester*, students offer our manual-based intervention for clients and relatives in three Municipalities; Aalborg, Vest Himmerland and Vejle. We achieved close collaborations with the Municipalities because they recognize the need for rehabilitation psychological interventions and value research-based practice. Therefore, both clients and relatives are recruited from the Municipality and our clinic is situated at two locations; one in the municipality and one at the University. Several other municipalities have expressed interest in the programme and collaboration with these may be added in future years.

Students are teamed up in pairs, which offer individual therapy for clients (12 sessions) and group therapy for relatives (5 sessions). Working in pairs ensures a continuously reflective partnership and constructive critique in between supervisions. Supervision is provided twice-weekly by an authorized psychologist whose experience includes third generation CBT as well as working with ABI clients.

During the third semester, students write a group project. Here, they typically combine practical experience from their internship with theoretical knowledge and thereby further the sophistication of their understanding of rehabilitation psychological perspectives and interventions. Project-organized group work is a hallmark of the Aalborg PBL model, and the fact that students collaboratively define problems based on real life experiences *and* theoretical knowledge contributes to ownership and engagement in the learning process. Thus, the Aalborg PBL model requires highly interdependent students along with motivating, supportive and facilitating teachers (Ryberg, 2006, Kolmos et al. 2006).

During the *last semester (4th)*, students write their master thesis. Ideally, these projects are targeted toward identifying and suggesting solutions to real problems and are therefore potential knowledge contributions. After graduation, we encourage students to collaborate with us on transformation of their projects into research articles when relevant. This has resulted, so far, in article collaborations with six master thesis students, of which two articles have already been published (Glintborg & Krogh, 2015a; Glintborg & Krogh, 2015b), four are under review, three have been accepted as book chapters; and additional manuscripts are currently in preparation.

DISCUSSION: CHaRe AS A NEW APPLICATION OF PROBLEM-BASED LEARNING

PBL can take different forms and vary from institution to institution. However, Hmelo-Silver (2004) suggests that five goals are common for all PBL curricula:

- a) Constructing an extensive and flexible knowledge base
- b) Developing effective problem-solving and meta-cognitive skills
- c) Developing self-directed, lifelong learning skills
- d) Becoming effective collaborators
- e) Becoming intrinsically motivated to learn

(Hmelo-Silver, 2004, p. 239-40)

We believe that the CHaRE programme supports students in achieving these goals. The close connection between research, education and practice in the CHaRE programme is aligned with PBL. From our perspective, the PBL-inspiration in CHaRE is evident in that the students are dealing with authentic psychological problems as part of their professional training. Moreover, they are not dealing with real problems from only one point of view, but from multiple (bio-psycho-social) perspectives and must integrate insight from these different scientific fields, as well as draw on general psychological knowledge obtained from their bachelor degrees in psychology (cf. Hmelo-Silver's point a). The structuring of the programme and the supervision during it encourage these integrations.

This way of organizing teaching and learning holds interesting educational possibilities that may generalize. These include how the students become motivated by the different cases, how their learning is structured by clinical practice, how they become prepared for a job after their graduation, and the reduced risk of a so-called "practice shock" (Stokking et al., 2003) (cf. Hmelo's point c). PBL as an educational strategy is characterized by using clients' problems as a motive for students' learning, to acquire knowledge of basic and clinical sciences related to that problem, and to enhance complex problem-solving skills more generally.

Rehabilitation psychologists are trained to engage in a broad range of activities, including clinical practice, consultation, program development, service provision, research, teaching and education, administration, development of public policy, and advocacy related to persons with disability and chronic health conditions. All of this is addressed one way or another in the training that CHaRE students receive during the programme. This training is assumed to also support the development of meta-cognitive abilities (cf. Hmelo-Silver's points b & c).

The initial workshop in CHaRE is based on our research results and the gaps identified in practice. Findings and examples are presented in this workshop. When students are able to see how psychological concepts actually apply to clinical practice, they seem to become more interested and engaged in class, which in turn aids both initial learning and retention of the information. This engagement also tends to increase participation and enhance discussion, which is essential to creating an environment in which students feel respected and valued as learners, and their new knowledge becomes appropriated rather than just learned by heart.

We maintain that all teaching activities (lecturing, seminars and supervision) should be engaging and authentic. We want our students to be inspired and motivated to learn and, furthermore, we want them to be able to apply what they learn during the CHaRE workshops to clinical practice and further develop it in group projects. Therefore, the programme is continuously adjusted in collaboration with the CHaRE students and the Municipalities as we gain new knowledge and experience, and thus students become actual collaborators in the development of the CHaRE programme (cf. Hmelo-Silver's points d & e).

To implement and teach on a PBL-based master programme takes more time than conventional teaching. The curriculum as presented is based on interactive workshops, project work and report-back. The self-directed learning and the time taken for student evaluation means that more time is required by students and curriculum planners for this than for a conventional course. However, the students' learning counter this disadvantage. Students not only learn subject material, but also develop problem solving skills, critical thinking skills and skills for life-long self-directed learning beyond what is usually developed from didactic teaching. Some advocates have focused on the increased levels of student engagement with the subject matter or higher levels of motivation to complete assignments that are meaningful to the students (e.g., Drake & Long 2009; Grant, 2010). This is also something that we see in the CHaRE programme, and it is a pleasure to see that we have managed to evoke great interest among the students, too.

Finally, all five points summarized by Hmelo-Silver as common ground in PBL approaches refer to changes in the minds of students. CHaRE was developed to facilitate these. However, the original formulations of the Aalborg PBL-model went beyond student learning as a change in mental states and competences; students often included actual changes in extra-mural systems in the goals of their project work. Today formulations would be different, but a somewhat similar idea is present in university level strategic goals of collaboration with external partners to co-produce innovative results (cf. Kolmos et al, 2004; <http://www.en.aau.dk/cooperation>). The PBL-approach of CHaRE also facilitates such combination of student learning and addressing challenges at a societal level. Seeing the gaps and needs in practice is essential in order to educate future psychologists for future needs. We have a strong network and collaboration with the Danish National Board of Social Service and the National Board of Health as well as with local practice. We believe this strong connection is a major advantage for identifying gaps and needs that future psychologists can and should become able to address, as well as for developing and disseminating the means to do so. Developing Rehabilitation Psychology in Denmark with a "whole-person-approach" as advocated by the WHO, and with empirically supported treatments tailored to the client, is one example of reaching toward this goal.

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