

[DOI: 10.20472/IAC.2015.020.066](https://doi.org/10.20472/IAC.2015.020.066)

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STUDENT PROJECTS FOR HEALTH PROMOTION IN THE PRIMARY HEALTH CARE SECTOR - THE DESIGN PROCESS OF A SELF CARE ST

Abstract:

Health promotion is seen as an important part of health care in Finland. However, at the same time, limited resources hinder the possibilities to develop health promoting measures on the local level, in municipalities and in health centres offering primary health services for local residents. In this paper, an example is given of how a local university of applied sciences and its students can work as enablers of health promotion in collaboration with regional health service providers. When working in real-life development projects, the students gain experience at the same time as the health care sector and the local residents benefit from the end results, providing a win-win situation for all parties. A case in point is the development process of two Self-Care Stations in two municipalities in the western Uusimaa region in southern Finland, in the municipalities of Karkkila and Vihti. The Self-Care Stations are easy-access services for giving opportunities to monitor one's health and get information by oneself, at a suitable time, in order to take more responsibility for the self-management of one's own health. At the same time, Self Care Stations relieve the nurses' time from blood pressure measurements to be devoted to life-style counselling. The Self Care Stations have proven to be an important part of the service palette of the health centres. According to the feedback, the Self Care Stations in Karkkila and Vihti have succeeded in raising the clients' awareness of their own health and their own possibilities to have an influence on it. The Self Care Station piloting presented in this paper has been transformed into an ongoing service.

Keywords:

collaboration, health promotion, self care, self care station, student project

Introduction

Cardiovascular diseases are the biggest cause of death worldwide. In 2008, over 17 million people died of cardiovascular diseases. (Mentis et al., 2011: 8.) Another globally widespread chronic condition is diabetes mellitus. Worldwide, approximately 382 million people have diabetes, of which 46% are undiagnosed. 85 to 95% of diabetics have type 2 diabetes. Through the year 2035, the prevalence of diabetes is estimated to increase to 592 million. The largest increase will occur in developing countries. (Guariguata et al., 2013.)

Cardiovascular diseases and diabetes are also among the most common chronic diseases in Finland. In 2012, 39% of all deaths in Finland were caused by diseases of the circulatory system (Official Statistics of Finland 2013). About 500,000 people in Finland suffer from diabetes. This number is predicted to double in 10 to 15 years. 75% of diabetes patients suffer from type 2 diabetes. The cost of diabetes treatment is 15% of the total cost of health care. (Diabetes: Current Care Guidelines, 2013.) Cardiovascular diseases also lead to significant costs. For example, in 2012 the Social Insurance Institution of Finland paid 47 million euros in compensation for sickness allowance periods due to diseases of the circulatory system (Alatalkkari et al., 2013: 180).

The prevalence of chronic diseases has highlighted the importance of preventive measures. Although there is a genetic liability for both type 2 diabetes and cardiovascular diseases, one's lifestyle has a major influence on the outbreak of these diseases. The major risk factors for type 2 diabetes and cardiovascular diseases are obesity, smoking, physical inactivity and unhealthy diets (Laakso, 2003) such as excessive use of sodium and alcohol.

Cardiovascular diseases and diabetes are suitable targets for both primary and secondary prevention. We know the risk factors, these factors can be dealt with and the role of the individual is important in reducing the risks. For example, Kiiskinen et al. (2008) consider health promotion activities as both effective and cost-effective. They estimate that it is possible to decrease morbidity caused by public health problems by 20 to 40% by reducing the risk of these diseases. Not only the cost of health care would decrease but human suffering would also decrease, the significance of which should not be undervalued. However, the effectiveness of prevention programs in primary health care settings have contradictory results both in randomized and non-randomized studies (Kiiskinen et al., 2008; Laatikainen et al., 2007; Absetz et al., 2009; Lakerveld et al., 2013). New tools for executing prevention are thus needed.

In principle, health promotion is in focus in Finnish public health care. Besides offering treatment, municipalities have been obligated to promote health on the population level as well as on the individual level since the Primary Health Care Act came into force in 1972 and again in 2011 with the Health Care Act. Health promotion on the population level should be carried out in all municipality sectors (education, traffic, environment planning, etc.). Health promotion on the individual level, on the other hand, takes place mostly in primary health care centres. As health centres reach the majority of

the Finnish population, they are thus extremely suitable organizations to promote healthy lifestyles. Lack of health promotion is not, however, sanctioned as is access to treatment within a given time. At the same time, public health care organizers are confronted with a growing demand for services as the population ages. With the benefits of health promotion difficult to measure and taking a longer time frame to manifest, health promotion is easily allocated out.

As the resources of the public health care sector are not sufficient to offer all the support needed to motivate lifestyle changes in a health promoting manner, new ways of organizing services are needed. The benefits of collaboration of different actors in offering services have been widely acknowledged in Finland. For example, the implementation plan of the National Development Programme for Social Welfare and Health Care (Kaste) requires the municipalities to develop the region's services together with the enterprises and associations in the region (Ministry of Social Affairs and Health 2012a). In this article, the universities of applied sciences are presented as one possible partner for primary health care providers in health promotion. A case in point is the collaboration of the Federation of Municipalities Karviainen and Laurea University of Applied Sciences with the design process of a Self Care Station taken as an example.

The Federation of Municipalities Karviainen (Karviainen in short) is the primary health care provider of two municipalities in western Uusimaa, Karkkila and Vihti. It has a health centre in both municipalities. Other services it offers include maternity and child clinics, health care services for school pupils and students, occupational health care, home care units, ward care and other health services for the residents in different age groups. Karviainen also provides extensive social services. At some point of their lives, every municipal citizen has some kind of contact with Karviainen, and thus the possibility of Karviainen to affect the lifestyle of the residents is substantial.

The universities of applied sciences (UAS) offer higher education for vocational degrees. Laurea University of Applied Sciences operates in several regions in southern Finland. The Lohja Campus of Laurea UAS (Laurea Lohja in short) offers education in nursing and business studies. It is situated in the municipality of Lohja in western Uusimaa, covering seven municipalities as its operational environment, including Karkkila and Vihti. With a shared interest in the wellbeing of the residents in the western Uusimaa region, Karviainen and Laurea Lohja have joined forces in developing and delivering services for the residents in the area. Within the larger development project, *Pumppu*, funded by the European Regional Fund, the Self Care Stations of Karviainen were redesigned to give better support for the self care of the residents, especially in the prevention of cardiovascular diseases and diabetes.

Setting the stage: health promotion as part of the services of the Federation of Municipalities Karviainen

According to Rimpelä et al. (2009), there are considerable differences between health centres in Finland in relation to how health promotion is administered, financed and

carried out. In general, health promotion is better organized in larger municipalities than in smaller ones. The National Institute for Health and Welfare has established an online-service called TEAvisari to compare the direction of health promotion capacity building in all municipalities and regions in Finland (National Institute of Health and Welfare 2014). According to TEAvisari, the administration of Vihti is more committed to health promotion than municipality administrations in general. In Karkkila, on the other hand, the administration is much less committed than on average. The primary health care organizer Karviainen has more mutual practice of health promotion acts and better patient participation than on average, but the commitment of primary health care administration is almost non-existent. Resources, monitoring results, and management are also on a poorer level than in primary health care in general.

Health promotion in public health centres is either opportunistic or targeted. In the health centres of Karviainen, the aim is to appraise the risks of cardiovascular diseases and diabetes during each appointment with the nurse. The means that the nurses use are measuring the waist circumference and blood pressure and calculating the BMI. If the results are over the reference scores, additional examinations are offered to the client and guidance in decreasing the risks are given in accordance with the care pathways in use at Karviainen. There are also some group sessions in Karviainen that the residents can attend (weight-management groups, healthy lifestyle sessions and blood sugar tests in groups).

Within the doctor's appointment unit at Karviainen, there has been a project to identify patients having metabolic syndrome (MBS) or being at risk of developing it and to encourage them in getting regular checkups and self-care. Basically, the primary goal in offering health promotion services is to enable the residents to take care of their health and wellbeing themselves. Supporting self care means increasing people's confidence and self esteem so that they are more equipped to make decisions concerning their own health and avoid triggering health problems (Chambers et al., 2006). As a simple step in supporting self care, blood pressure monitors and scales have been made available in the waiting rooms of the health centres.

Universities of Applied Sciences – actors in regional development

The act on Universities of Applied Sciences in Finland (9.5.2003/351) states that besides education, universities of applied sciences (UASs) are responsible for research and development that benefit the UAS, the employers and the region of the UAS on the whole. This R&D work should be done in cooperation with local actors as well as other universities in Finland and internationally.

Laurea UAS implements the Learning by Developing (LbD) pedagogic model, which combines the education function of the UAS to the research and development function and regional development. The LbD model as described by Raij (2013) is pragmatic in nature, emphasizing action and the need to see competence as a holistic concept combining theory, skills, experience and moral knowledge. In the LbD model,

students work as co-researchers in research, development and innovation (R&D&I) projects, building their competencies in authentic working life environments.

The Laurea UAS Lohja campus educates nursing and business students. As a regional developer, Laurea Lohja is interested in both the ecological, economic and social sustainability of the western Uusimaa region. Through the LbD model, the students of Laurea Lohja are working as co-researchers and developers in regional projects. Local entrepreneurs are offered help in their business endeavours, e.g. in doing market research through student-led projects in the Laurea Business Lab. The Health Market, on the other hand, is a learning environment in the nursing program. It includes a simulation environment at the Lohja campus, Haven Hospital -virtual environment in Second Life and a project environment for authentic work projects in the western Uusimaa region. The Health Market is a place where nurse students can practice nursing skills and R&D&I skills in projects, co-operating with the public sector, local associations and the private wellbeing sector in the region.

As Laurea Lohja is the only educator of nurses in the western Uusimaa region, it has solid relations with local health care providers. In the nursing field, the training periods of nursing students offer a logical continuous activity with local health care providers. The teaching staff is sensitive in scanning for opportunities for new R&D&I tasks when interacting with the health care staff. When the staff of the UAS and the health care providers know each other and the cooperation works well, new kinds of models for cooperation may be pursued. For example, in 2012 Laurea Lohja and Karviainen joined forces in reaching middle-aged men for health checkups at local car retailers, measuring blood pressure and blood sugar levels and offering guidance. In this project, the feedback confirmed that it is very important that self-care services are easy to come to and near people (Lindström & Nikali, 2013).

Besides the needs of key partners in the area, residents' needs are also taken into consideration in defining and targeting R&D&I work in the health and wellbeing field. For example, in the western Uusimaa region, local associations are very active and interested in getting their members' opinions heard. This has resulted in many surveys and interviews with association members (e.g. heart and diabetes patients) that have revealed specific concerns in their everyday life.

Projects as enablers of cooperation

Laurea Lohja was a partner in a European regional fund project, Pumppu, for developing wellbeing services in four regions in Finland in 2011-14. The project developed wellbeing services in a citizen-led manner, at the same time enhancing the co-operation of public and private (for-profit and nonprofit) actors in the care pathway. In the subproject of Laurea Lohja, the focus was on health promoting and preventive services for heart and diabetes patients, the unemployed and families with children, and youth with neurological disabilities.

In this article, we are focusing on the work done on the theme for heart and

diabetes patients. The design of the theme was founded on the interests of the local actors and based on survey and interview data gathered in an earlier project from heart and diabetes patients (Tuohimaa et al., 2012). Local actors saw the need for more emphasis on health promotion in service production. The patients, on the other hand, saw a need for more social support, especially in the rehabilitation phase. Therefore, in the project design, a holistic stance toward health as biopsychosocial wellbeing was emphasized, and the focus was set especially on the health promoting and rehabilitation periods of the care pathway, trying to find ways of enhancing the seamlessness of care. In line with the uniting theme of the Pumppu project partners, the cooperation of local actors was taken as a starting point to make use of all the resources and know-how in the region.

In accordance with the Learning by Developing pedagogic model that Laurea UAS implements, the students of Laurea Lohja worked in the project as researchers and developers with their own assignments, albeit under the guidance of the lecturer responsible for the specific study unit. The students gathered information on the case groups, the service pathways, and on the operational environment and presented their work for actors in the region in open seminars. The information gathered further guided the R&D&I work by giving input to the present-day problems in the care pathways, both from the point of view of the residents and clients as well as the care personnel. Based on the baseline information, new R&D&I student-led projects were placed to search for solutions to the problems found. Students organized several workshops and meetings, both independently as well as with the project team to work together to find solutions with the actors and service users in the region.

In a project like Pumppu operating in the health care setting, the LbD model provided a win-win-win-win situation. From the point of view of the basic function of the UAS, the most important thing is that the students learn competencies that they will need in their career. At the same time, the project team has at its disposal a bigger work contribution than it would have based solely on project funding. From a regional perspective the employers working as project partners get outside help for their assignments, which otherwise might be left undone due to resource shortages. And finally, the residents of the region benefit, too, as the results may be used to design better services. With student input, new kinds of services and activities may be piloted and tested with agility. The creative potential of the students should not be overlooked either. The younger students bring fresh ideas to the table, whereas the mature students benefit from prior working experience. With a mixture of students from different disciplines, new kinds of ideas emerge, giving the students new opportunities to learn from each other.

At the same time that Laurea Lohja was carrying out the Pumppu project to improve health promoting and rehabilitation services in the region, Karviainen was also developing its operations and considering how to merge health promotion with its service structure more fully. In other words, the UAS and the health care provider had a common interest in offering more and better health promoting services and support for self care to

the residents in the area. With the project as a platform for cooperation, a case study was initialized with Karviainen to develop health promoting services in the region.

The service design process

With a history of successful cooperation and a proactive stance toward developing health promotion services, Karviainen became one of the key partners of Laurea UAS in the Pumppu project. It was decided that Karkkila and Vihti would be the case area for heart health, where new services would be designed and tested in the project prior to dissemination. In line with the project plan, Laurea Lohja was interested in enhancing cooperation of all the actors in the region, which was a necessity in taking health promotion to different settings, including outside the health centre. Karviainen also acknowledged that it could not by itself offer all the health promoting services needed, but more and deeper cooperation with other actors in the region would be necessary. Therefore, an inclusive design process was implemented with input from both the actors as well as the residents of the region.

To define the services that would be chosen to the student led development projects the care personnel of Karviainen was first interviewed. Then a workshop was arranged to the personnel and a discussion evening for the residents and actors in the area. In accordance with parallel tracking (Laverack and Labonte, 2000) both top down and bottom up targets were set, trying to find solutions for problems posed by both the personnel and the residents.

After the events, six development themes were chosen for the students to work on in spring 2013. The student teams consisted of both nursing and business management students, with nursing students responsible for the health care perspective and the business management students responsible for the service design perspective in the process. The development themes were Self Care Stations for the health centres, self care knowledge for pupils in secondary school, group activities for lifestyle counselling, group activities for pregnant families, easy access activities for school pupils, and support for social relations for the elderly. The task of the students was to arrange a workshop with service users and actors to discuss the present state and define one possible solution to the problem at hand, i.e., a service concept. The concepts were then presented in an open seminar. During the spring and summer of 2013, the service concepts were evaluated for their eligibility for execution, e.g. by contacting possible partners for piloting. Finally, four of the concepts were taken for further development and piloting: Self Care Stations for the health centres, self care for schools, easy access activities for school children, and support for social relations for the elderly. The piloting phases differed in their execution and timetable and were tailored to fit the specific study units in which the students operated. One of the themes – the social relations for the elderly – was implemented in another municipality.

The Self Care Stations as an example of collaboration

In this article we will present the development process of the Self Care Stations for Karkkila and Vihti health centres as an example of student projects in enhancing health promotion. Although self-care options such as blood pressure monitors were already available in the health centres prior to the project, the health care staff at Karviainen acknowledged the need for further development to promote self care in the health care setting.

Self Care Stations are one way to support self care for people who have chronic diseases (Ministry of Social Affairs and Health, 2012a and 2012b; Koikkalainen et al., 2012), for example diabetes or cardiovascular diseases. These stations are easy-access services for giving opportunities to monitor one's health and get information by oneself, at a suitable time, in order to take more responsibility for the self-management of one's own health (Ministry of Social Affairs and Health 2012a and 2012b). At the same time, Self Care Stations relieve the nurses' time from blood pressure measurements to be devoted to life-style counselling (Tala and Ketola, 2006).

In Finland, Self Care Stations have been developed and evaluated, e.g. in the Kanerva-Kaste project with about 180 Self Care Stations in eastern and central Finland, situated either in the health centre or places where people go in their everyday life, for instance libraries, swimming pools, social welfare offices or one-stop service points (Renfors et al., 2012). Self Care Stations are also common in other parts of Finland, with at least a blood pressure monitor available in the health centre waiting room in at least all the biggest cities in Finland.

The developing process of the Self Care Stations in the Federation of Municipalities-Karviainen had four phases and three different student teams as its implementers. In the first phase, two nursing students in their thesis surveyed the status quo of Self Care Stations in Health Centres in Finland and the expectations of the nursing staff in Karviainen. As the development need of Self Care Stations in Karviainen was evident right from the start of the project, the thesis work had already commenced prior to the interviews and workshops. According to the thesis work (Lindström & Nikali, 2013), Self Care Stations of Karviainen needed developing in four perspectives. The stations' role as a part of the clients' self-care needed strengthening. The stations also required more staff resources for maintenance and for giving guidance to new clients. More information and materials (advice booklets, for example) were also needed at the stations. And finally, the location had to be carefully evaluated because it should be at the same time both easy to access as well as quiet and offer privacy.

As the six development themes for the service design process were chosen, the design of the Self Care Stations was an obvious choice for further development, based on the recommendations already generated through the thesis work. So in the second phase of the development process, the student team consisting of nursing and business management students arranged an idea workshop, where wellbeing actors and members of associations and organizations of the region were invited. The students of the thesis

also took part in benchmarking and survey knowledge. In the idea workshop, participants generated ideas about the above-mentioned four themes by using a mind map and emphatic techniques (Norja et al., 2013).

In the third phase of the development process (in the autumn 2013), another team of nursing students put these ideas of the workshop into practice. *The location of the Self Care Station* needed to be private, bright, visible and attractive. These things were important according to the Kanerva Kaste report as well (Häkkinen et al., 2012). To enhance the role of the *Self Care Station as a part of self-care of the clients*, posters were made giving advice on different things to support self-care. To improve the *information level* of the stations, a proposition of materials and equipment for the stations was made. These included posters on nutrition and exercise, a poster about measuring blood pressure at home and about measuring your waist circumference by yourself, for example. The staff was also given a contact list for ordering materials in the future.

It is important that the Self Care Station has a person in charge and people giving guidance to new clients, for example on measuring blood pressure. The person in charge should look after materials and equipment in the station (Tala & Ketola, 2006). However, local organizations and associations could take part in the activities of the stations, too. This would enhance the participation of residents and the associations in health services, giving the health centre an increased customer-orientation (Ministry of Social Affairs and Health, 2012a). To ensure *resources for station maintenance and guidance*, students proposed a list for partners, which included local enterprises and associations as well as other organizations. The list helps the staff of the health centres to keep in contact with the region's wellbeing actors and plan events in the Self Care Station with them. The students also made an events calendar, which included (for example) national health-related awareness days and weeks. In addition, students made marketing plans for the Self Care Station, as knowledge about the stations is usually low (Koikkalainen, 2012).

The new Self Care Stations had an opening in December 2013. Students and lecturers from Laurea Lohja and the staff at the health care centre introduced the Self Care Stations to the press. Clients of the health care centre were able to become acquainted with the stations. Comments about the new Self Care Stations were positive. Both the staff and the clients were satisfied with the location, materials and equipment of the stations. The new stations were unanimously applauded.

In the fourth phase, the Self Care Stations were evaluated. The evaluation of the Self Care Stations was done by a questionnaire for clients from December 2013 to February 2014 to engage the users of the Self Care Stations more widely in the process. The questionnaire was designed as part of the thesis work of Lindström and Nikali (2013) in phase two. It included questions about knowledge about the Self Care Stations, using the station, its location, marketing and materials. The clients were also asked to estimate the role of the station in their self-care and self-management.

According to the feedback (n=21), the Self Care Stations have succeeded in raising the clients' awareness of their own health and their own possibilities to have an

influence on it. Clients of the stations have used it especially for measuring their blood pressure and weight. The staff of the health care centres have actively guided clients in using the services of the station. Based on the questionnaire, more measurement equipment was desired in the Self Care Stations e.g. for measuring blood sugar levels and height. It is important to provide all the necessary equipment for the citizens, although in this case, measuring blood sugar levels was not seen by the staff as a suitable task to be performed in the Self Care Station. The questionnaire indicated that the majority of the Self Care Station clients were over 50 years old. For further study, it would be beneficial to find out how younger client groups could be activated to use the Self Care Stations.

Conclusion

The collaboration of Karviainen and Laurea Lohja has been extensive and the results have been ample. The students have provided Karviainen with the latest research results through literature reviews. They have analyzed the care pathways and designed and piloted new services while at the same time gaining new competencies. The student input enables precise measures to tackle the identified problems. Although the students point to where the problems lie and what might be done to improve the situation, the responsibility for making changes lies with the health care provider. In the Pumppu project, small suggestions for improvements have also led to deeper collaboration in other matters.

The Self Care Stations have proven to be an important part of the service palette of the health centres. In the long run, it is presumed that the Self Care Station will have an effect on the need to make an appointment to the nurse merely for blood pressure measurements. Also the possibility to place Self Care Stations to other locations closer to the residents (e.g. libraries, shopping centres, swimming pools) have been pondered.

As it turned out, the role of the UAS was not only to offer help in developing new health services for the service providers in the region. The UAS itself had a distinct role in the region as a health promoter, too. Besides gathering information, the students also disseminated information in open seminars, which were taken as a new operations model for all courses and theses. Many other events were organized, too, with health promoting targets in different contexts: in shopping centres, schools and retirement homes. For instance, materials for health promotion in kindergartens were developed. By using the material, the students can be health promoters in all the training periods that are carried out in the kindergartens.

The Self Care Station piloting has been transformed into an ongoing service. After the good experiences at the health centres of Karkkila and Vihti, a new collaboration with another municipality in the area was established for developing a Self Care Station there, too. To disseminate the work done, materials developed by the students for the Self Care Station have been made available on the internet. The materials are a part of the

wellbeing backpack family web page that was developed in the project. The web page development also continues after the project. New contents are developed and new backpacks are designed.

The collaboration in the Pumppu project ended with a closing seminar in the region. Some of the thesis projects are still ongoing. New plans for collaboration are also underway.

Acknowledgements

The Self Care Stations were developed as part of a European Regional Fund project called Pumppu. We wish to thank the students and staff of Laurea University of Applied Sciences that participated in the development work for their valuable effort and enthusiasm. We also wish to thank the staff at the Federation of Municipalities of Karviainen and the local heart association for their involvement and support in the project. And especially, we wish to thank the clients at the health centres in Karkkila and Vihti for their input in the development work.

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