



## Editorial

# Accelerate the implementation of evidence-based health promotion in healthcare

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Implementation of solid evidence and related policies is a critical problem in healthcare as well as in other organizations. The delay from evidence to full implementation has been described to be over 10 years (1). It has major consequence for the individual patients and their families as well as for the healthcare and society. The implementation may be even slower for activities that actively involve the patients, such as health promotion in hospitals and primary care (2). The consequences include increased morbidity and mortality, in addition to reduced work power and quality of life – all of which could have been limited by timely implementation.

### Evidence-based policies and guidelines do not implement them-selves

The delayed implementation of new solid evidence takes place in spite of well-established national, regional or local policies and guidelines on smoking, risky drinking, malnutrition, overweight and sedentary lifestyle, e.g. from the Surgeon General (US), the National Institute for Health and Care Excellence (UK), the Danish National Board of Health and Welfare and Korea Health Promotion Foundation. High-effective programs are part of health planning world-wide and should be offered to all in need – regardless of the setting – keeping in mind that these conditions have a social gradient and strike harder among the vulnerable and disadvantaged patient groups. However, this is not the case today!

### Slow implementation strikes the hardest among vulnerable and disadvantaged patients

In best case, the patients with the highest needs should receive most related

services, but as the implementation of new solid evidence is slow, it may require high health literacy and a strong network to ask for and receive the evidence-based health services. Those characteristics are less frequent among the vulnerable and disadvantaged patients. The fact is that slow implementation limits access to new evidence-based health services and increase the inequity in health.

### Faster implementation is required

The obvious solution is just to speed up the implementation. To support implementation and dissemination in the healthcare over 60 theoretical frameworks and models have been described (3), but the large majority yet have to be proven effective and speed up the implementation in practice, and there is a general call for evaluation in high-quality research design (4;5).

The two most used framework for reporting the on the implementation is the Framework of Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) and the Consolidated Framework for Implementation Research (CFIR) (6;7). The RE-AIM is easy-to-use, both for structured reporting of the implementation results with a follow-up period of 2 years and for comparing across settings and different activities, such as quit smoking campaigns and individual smoking cessation interventions. The benefit of the CFIR is the detailed structure for in-depth discussions and understanding of local barriers and facilitators for implementation, but it is very time-consuming and does not report the level of implementation. The two framework may be complementary, but that also remain to be tested. None

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of the frameworks include drivers to accelerate the implementation.

### New research

Implementation science represents a new tradition and culture for evaluation of implementation strategies. It is a fast growing area of research defined as the scientific study of methods to promote the uptake of research findings into routine practice (8;9) thus improving quality and effectiveness of health services.

Some new and comprehensive studies have reported that specific models do not necessarily facilitate implementation. The first multi-national European randomised trial in this area included 23 long-term nursing care in England, Sweden, Netherlands, Republic of Ireland. It did, however, not show a difference in implementation of two models of structured support compared to a control group. (10) Independent accreditation of hospitals and other healthcare is another facilitator of implementation, but also a big business. A new cohort study on 4 400 hospitals and 4 242 684 patients in the US concluded that the Joint Commission was not associated with consistently better mortality and readmission rates at 30 days or patient experiences when compared to other independent accrediting organizations (11).

### More to come

Overall, we need more models and tools that has proven effective in putting new evidence into practice. This might be the reason that the development and evaluation of the new model for fast-track implementation (FAST-IM) in the HPH Network has been warmly welcomed, when presented at international health forums for managers, clinicians, public health professionals, health planners and other groups. It took place at 38 HPH member hospitals in 8 European and Asian areas, and the results are in the final step of the editorial process for publication. The managers, clinicians and patients reported positive experiences from the process (12). More evidence will be collected in the nearest future as several study protocols have been published, so hopefully we will soon be able to accelerate the implementation using effective tools and models based on solid evidence.

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## Research and Best Practice

# Determining the Feasibility of Incorporating a Bullying Involvement Screening into Pediatric Office Visits

Allison Messina, Diana Schroeder, Shiryl Barto, Karla Joyce-Good

## Abstract

**Background** Bullying is a serious problem that can lead to short and long-term physical and mental health problems. Many healthcare providers are reluctant to screen patients for bullying involvement because they lack education and training on bullying prevention. The objective of this study was to determine if pediatric healthcare professionals would find a bullying screening process useful.

**Methods** A training was developed by certified bullying prevention specialists to teach healthcare providers about bullying prevention, associated health effects, and how to utilize a validated screening tool in their practices to determine adolescents' involvement in bullying and possible related health events. Eleven pediatric practices participated.

**Results** At project end, providers and staff completed a survey (n=66) and participated in focus group to document their experience with the project. Results demonstrated that: 1) the bullying prevention training, survey process, survey tool, and related educational materials were beneficial; 2) a need and desire exists to incorporate the tool into future pediatric visits; 3) healthcare professionals believe they have a responsibility to help patients who have been bullied.

**Conclusion** The survey tool and process show promise for increasing healthcare providers' knowledge about bullying prevention and likelihood of screening their adolescent patients' for bullying involvement. The project showed the screening tool was a beneficial way for providers to engage their adolescent patients and families in conversations about bullying.

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## Introduction

Bullying is a serious problem that affects youth socially, academically, physically and psychologically. Bullying, retaliation and its consequences can lead to community conflict, short and long-term physical and mental health problems, and is part of a larger phenomenon of violence in schools and communities (1). Bullying is a form of youth violence that is often overlooked or misunderstood. Being bullied by peers is the most frequent form of abuse encountered by children; much higher than abuse by parents or other adults (2). According to 2015 Youth Risk Behavioral Surveillance System Survey, nearly 20% of students reported being bullied on school property and over 15% said they were electronically bullied over the past 12 months (3).

Bullying or being bullied, in or away from school, is consistently related to

four violence-related behaviors: carrying a weapon, carrying a weapon in school, frequently fighting, and/or being injured in a fight (4). Children who bully others are three times more likely to have multiple criminal convictions by their early 20's, have higher self-reports of drug and alcohol use, and hold beliefs that support violence (5;6). Research indicates that childhood bullying is a risk factor for later criminal offending, and being the bully increases the probability of adverse outcomes later in life (7).

The health issues experienced by children, whether participating, being targeted or witnessing bullying behaviors, are significant. Headaches, stomachaches and sleep problems are some of the health problems these children may face (8). Anxiety, depression and other mood disorders are significantly associated with children who are bullied in school (9),

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and to a lesser extent, bystanders to the bullying. Victims and perpetrators of bullying are at increased risk of self-harm, self-inflicted, accidental and perpetrated injuries, and alcohol/drug abuse as well as attempting or completing of suicide (10-14). Studies indicate that bullied students are at least two times more likely than non-bullied peers to have psychosomatic problems (11). The consequences of bullying extend into adulthood with a significant association between childhood bullying behaviors and later psychiatric morbidity, including chronic depression and suicide (15).

### Role of Healthcare Providers in Bullying Prevention

The significant health impact of bullying on individuals and society mandates a multifaceted approach that begins in an exam room (16). Healthcare providers play a critical role in bullying prevention, as many psychosomatic and psychosocial health problems follow an episode of bullying victimization (9). However, the effects of bullying are rarely obvious, and it is unlikely that a child will present to a physician with a chief complaint related to bullying (17). Providers are frequently the first to see the physical and/or emotional impacts of interpersonal violence among youth and need to remain vigilant for the possibility that a child is being affected by bullying (18). The potential negative health, psychological, and educational consequences of bullying experiences are significant and providers need to establish whether bullying plays a contributing role (9).

In 2005, the AAP launched Connected Kids: Safe, Strong, Secure, to help pediatricians integrate violence prevention strategies into routine child health visits. Their 2009 Policy Statement: Role of the Pediatrician in Youth Violence Prevention encouraged pediatricians to address the threat of youth violence (which includes bullying) within four domains: clinical practice, advocacy, education, and research, and to take an active role in its prevention (19). Yet neither has led to widespread changes in the exam room around the topic of bullying prevention.

Even though medical professionals can bring critical expertise to bullying prevention, too often it is not included in "violence against children" conversations in the exam room even though it is one of the most common form of violence that children can experience (20). Pediatricians should ask about bullying when school age children present with unexplained psychosomatic and/or behavioral symptoms, demonstrate signs of depression or talk about self-harm (17). Even with the AAP's clear recommendations, pediatricians still reported they felt ill prepared to screen for and manage

forms of violence other than child maltreatment (19). Providers have limited professional education about bullying, which leads to inadequate assessment and intervention (19). Further, clinicians cite numerous barriers as to why they often don't offer these preventative services such as: lack of knowledge/confusion about guidelines or available tools, lack of time, belief that he/she can't effectively deliver the recommended services, belief that the delivery of services will lead to the desired outcome, and/or lack of motivation to change the practice (21). This data suggest that pediatricians want more training and structure when it comes to preventing youth violence, including bullying, but evidence-based screening and intervention strategies for providers remain limited (22;23).

Screening for bullying exposure is a reasonable first step. For example, patients who demonstrate signs of anxiety, depression, or social withdrawal should be routinely screened by clinicians to determine the patient's potential involvement in bullying as these symptoms can be related to peer victimization (24). If bullying is identified as a patient concern, clinicians should then assess for any associated physical/psychosomatic health complaints (24). In addition, when screening indicates, clinicians should provide patients with counseling using evidence-based responses, referral to mental health professionals, provide educational resources, and/or advocate for appropriate school follow-up (18;25). Pediatricians can help limit the adverse consequences of bullying through this early detection coupled with effective intervention (26).

### Research Objectives

This study examines the feasibility of using an in-office bullying screening tool. The tool was administered to youth in grades 3-12 during office visits at eleven pediatric practices in Pennsylvania over a 15-month period. The objectives were to:

- 1) determine the effectiveness of a bullying prevention training module for providers that focused on understanding the issue of bullying and the health related consequences;
- 2) help pediatric practices address bullying issues with their patients and families and provide appropriate guidance and resources;
- 3) determine the feasibility of pediatric offices' ability to use a validated screening tool to screen patients for exposure to bullying and related health effects; and
- 4) explore the willingness of practices to continue the screening process after the pilot period.





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### Methods

#### Project Description

Prior to the project's start, a literature review was conducted and focus groups were held with three volunteer medical practices to learn their thoughts about why healthcare providers are reluctant to screen patients for bullying involvement during office visits. These sites self-identified: 1) a lack of professional expertise and comfort in assessing bullying-related health issues, and 2) the need to be able to start and manage conversations with their patients about bullying in a time-efficient, but beneficial way as barriers to more comprehensive bullying experience screening. Providers indicated a desire for a screening tool that was easy to administer and score, and a clearly defined procedure to interpret results and provide relevant, appropriate follow-up strategies. These issues and concerns were addressed in the development of the training module and the methodology of survey utilization.

#### Intervention: Providers' Training

A 90 minute bullying prevention education training module was developed and delivered by experienced bullying prevention trainers to pediatric practices prior to the start of the study. Physicians and healthcare staff who had direct contact with patients (physician assistants, nurses, nurse practitioners, psychologists, receptionists, medical aides, and social workers) completed the training. Staff who were unable to attend in person could call-in. Staff who did not interact directly with patients did not participate in the project.

The training covered the widespread and complex issues related to bullying with a specific focus on the health consequences, best practices in responding to children involved with bullying, and current research related to bullying and the role of the clinician in bullying prevention. Participants were taught how to utilize and score the survey tool, how to use the "Decision Tree" (Figure 1) to determine what follow-up was needed, how to provide effective counseling, and when to give additional bullying prevention resources or recommend follow-up services to patients/ families. The screening tool, parent resources and recommendations for anticipatory guidance were developed based on best practices.

The Bull-M, a validated 10-item questionnaire, was used to screen patients for bullying involvement. It focused on twelve common bullying behaviors and students' and peers' participation in these acts (23). Questions one through nine relate to students' involvement in bullying in a variety of school settings, either as the bully or as a target, and types of bullying experienced. The 10<sup>th</sup> question queries whether the four most likely

health consequences of bullying (headaches, stomachaches, loss of appetite and/or sleep problems) were experienced. For this project, the Bull-M's 10th question was deconstructed into 4 separate health questions to better capture specific health outcomes. This resulted in a 13-question survey which was then re-titled the "Bullying Experience Survey Tool" (BEST).

#### Study Procedures

Juvenile patients were required to sign an assent form granting permission to participate in the study, and parents/caregivers signed an informed consent indicating their willingness to allow their child to participate as required by the IRB. Consent/assent could be withdrawn at any time. No incentives were offered for patients, but participating pediatric practices received 100 children's paperback books to distribute to any patients after the study ended.

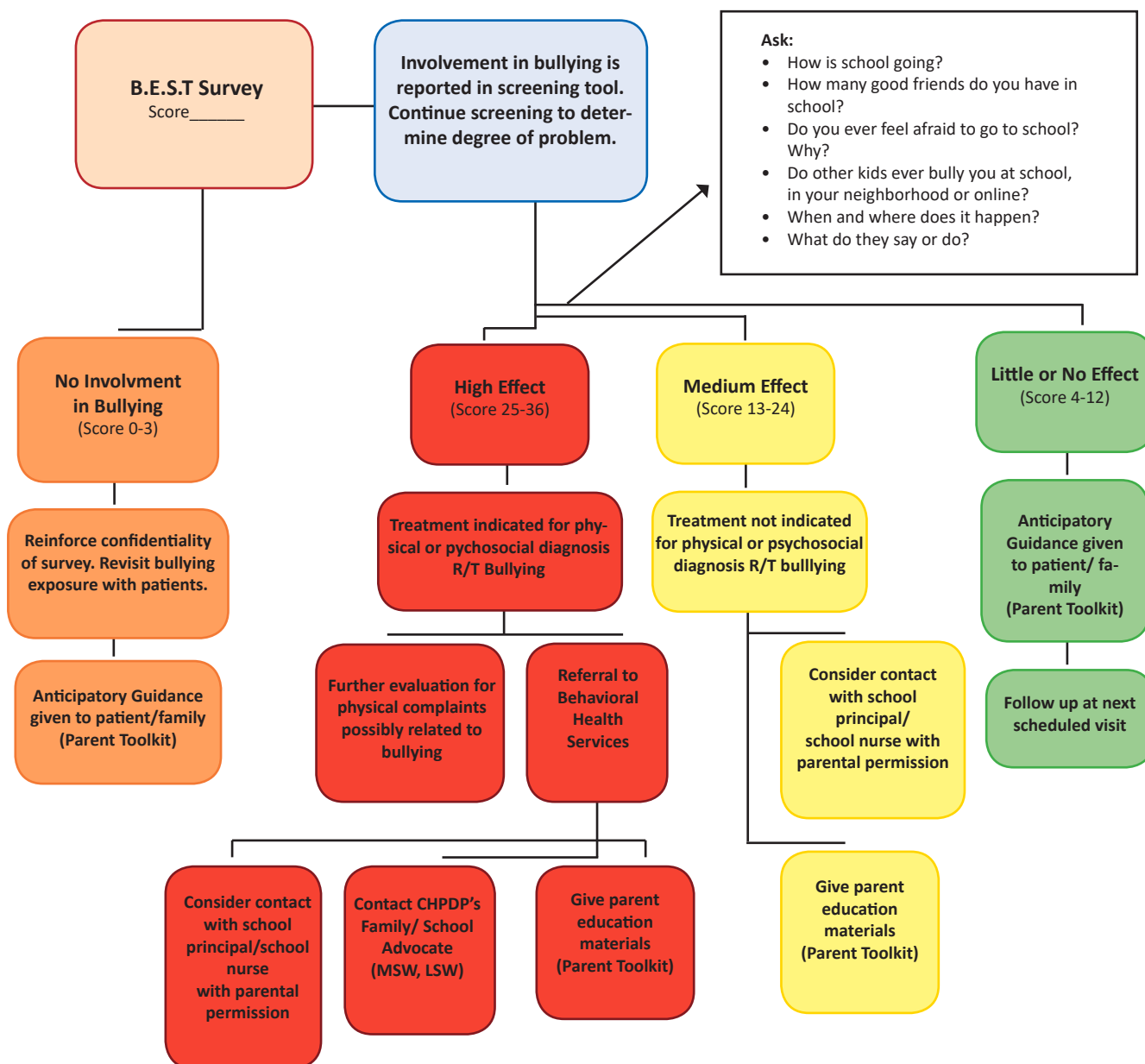
Patients in grades 3-12 were offered the BEST survey regardless of the type of visit (i.e. well-check, sick visit, chronic disease management), and 414 surveys were completed during the 15 month study period. Receptionists gave patients and parents/caregivers the assent and consent forms at check-in to review and ask questions before the medical visit. If consent and assent were provided, the medical assistant gave the patient the survey in the exam room to complete before the pediatrician entered the room. Parents/caregivers were instructed not to help with the survey unless their child had difficulty reading. The survey asked participants to indicate their grade level and gender.

Using a 5-point Likert frequency scale, the survey asked subjects to indicate how frequently (never, rarely, sometimes, often or everyday) they participated in bullying others or were targets of bullying themselves. The medical assistant scored the survey and reported the total score which indicated the patient's involvement in bullying to the healthcare provider. For each question, the score ranged from 0-4, with the highest possible score on the nine bullying questions being a 36. A higher score indicated a higher level of bullying exposure. Bullying prevention literature related to health consequences suggests low, moderate or high levels of exposure to bullying correlate to health consequences (26). The same scoring method was used for the health-related questions. The health effect score ranged from 0-16. A higher health effect score suggested a possible health consequences secondary to bullying that needed to be explored by the provider during the visit.



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Figure 1 Decision Tree CHP



To help providers understand the survey's score, a Decision Tree (Figure 1) was created to reflect four levels of bullying exposure (Table 1). To make the Decision Tree easy for providers to use it was color coded to reflect different bullying experience levels. Once the survey score was calculated and the corresponding level of effect identified, the provider utilized the Decision Tree to determine what counseling and anticipatory guidance was indicated (Table 1), what patient resources should be given; and if any mental health professional referrals were recommended.

In addition, any patient who scored a 4 or higher received the "Pennsylvania Bullying Prevention Toolkit" (<http://www.safeschools.info/content/BPToolkit2014.pdf>) to help their parents understand and deal with the effects of bullying. The Toolkit addresses issues such as cyberbullying, tips for parents, understanding what to do about bullying, the difference between bullying and conflict, healthcare providers' roles, and the schools' role (27). The Decision Tree and any provider notes were included in the patient's medical record for follow-up as needed.



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**Table 1** Summary of Decision Tree Anticipatory Guidance

	No Involvement in Bullying Score 0-3	Little or No Effect Score 4-12 (Green coded)	Medium Effect Score 13-24 (Yellow coded)	High Effect Score 25-36 (Red Coded)
Anticipatory guidance given to the patient/family.	x	x		
Bullying Prevention Toolkit resources provided. This Toolkit provides additional information on numerous topics related to bullying		x	x	x
Provider prompted to consider contacting the patient's school principal and/or school nurse, with parental permission.			x	x
Provider provided families with a toll-free bullying prevention consultation line (as indicated)			x	x
Providers prompted to refer the patient to behavioral health services (social worker and/or family/school advocate as indicated).				x
Provider to evaluate patient for physical effects possibly related to bullying.				x

### Intervention: Online Survey and Focus Group Follow-up

After the project period, 17-question Healthcare Provider and Staff Online Survey was administered to healthcare providers and staff who had direct contact with patients. Follow-up focus groups were conducted to collect additional information about participants' perceptions and overall experiences with the project, including the healthcare provider training. Six focus groups were held in the geographic areas of the participating pediatrician practices. Practices were selected based on their ability to attend the scheduled focus group dates. Table 2 lists the focus group questions.

### Results

Sixty-six Healthcare Provider and Staff Online Surveys were completed (n=33: Medical providers: 12 physicians, 12 nurses, 4 nurse practitioners, 4 physician assistants, 1 psychologist; n=31 office workers: Medical Assistant/Office Manager/Rooming Assistant, and 2 who did not indicate their profession). One survey was incomplete and excluded from the total. Survey responses are summarized in Table 3. This data indicated that most respondents "strongly agreed" or "agreed" that healthcare professionals play an important role in bullying prevention, and that although professionals feel they should address this issue, over 1/3 of respondents were not asking their patients about bullying prior to this project. Six-seven percent (67%) of respondents felt that participation in the pilot project enhanced their practice, and if the BEST tool or simil-

**Table 2** Focus Group Questions

1. What do you feel are common adverse health outcomes for children who are victims of bullying?
2. What do you feel are common adverse health outcomes for children who are bullies or bully-victims?
3. In general, how do you think other healthcare providers address bullying when it is affecting their patients?
4. How do you and your staff address bullying when it is affecting your patient?
5. What were your experiences with the BEST?
6. What were your experiences using the Decision Tree?
7. Was the training helpful in guiding your discussion with patients and their family members?
8. What would you change about the BEST or Decision Tree model?
9. Did patients/parents require further information or services after taking the BEST?
10. If yes, what types of information, referrals or treatment were given?
11. What was the families' reception to the follow up resources that were given to them?
12. Did the Decision Tree help you give consistent information to patients?
13. Is there anything else you would like to add?



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**Table 3** Health Care Provider and Staff Survey Responses (n=66)

Beliefs About Addressing Bullying	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	No Response	n
I believe that health care providers play an important role in bullying prevention.	0 0.0%	6 9.1%	1 1.5%	38 57.6%	21 31.8%	-	66
I believe that health care providers should assist schools and communities in doing more to prevent and stop bullying.	1 1.5%	2 3.1%	0 0.0%	35 53.9%	27 41.5%	1	65
Bullying should be addressed during physician visits with school aged children.	0 0.0%	3 4.6%	1 1.5%	34 51.5%	28 42.4%	-	66
I address bullying with my school aged patients and their families during routine visits.	3 5.6%	18 33.3%	2 3.7%	24 44.4%	7 13.0%	12	54
I feel that time spent talking with patients and their families about bullying is beneficial.	1 1.6%	4 6.6%	1 1.6%	28 45.9%	27 44.3%	5	61
Parents are often aware of their child's exposure to bullying.	7 10.6%	30 45.5%	3 4.5%	23 34.8%	3 4.6%	-	66
<b>Perceptions about BEST and resources</b>							
The BEST tool was easy for patients to use.	0 0.0%	4 6.7%	1 1.7%	40 66.7%	15 25.0%	6	60
The parent/patient feedback about the BEST tool was positive.	0 0.0%	6 10.5%	0 0.0%	43 75.4%	8 14.0%	9	57
The BEST tool was a beneficial guide to identify bullying involvement among patients.	0 0.0%	5 8.6%	0 0.0%	38 65.5%	15 25.9%	8	58
The use of the BEST tool and Decision Tree helped identify correlations between bullying exposure and patients' symptoms.	0 0.0%	8 14.3%	2 3.6%	38 67.9%	8 14.3%	10	56
The BEST tool allowed me to collect accurate information regarding patients' experiences with bullying.	0 0.0%	8 13.8%	0 0.0%	42 72.4%	8 13.8%	8	58
The Decision Tree was useful in helping the provider determine appropriate interventional strategies, education and follow-up based on the findings from the BEST tool.	0 0.0%	8 14.5%	2 3.6%	33 60.0%	12 21.8%	11	55
The bullying prevention resources given to families were found to be beneficial.	0 0.0%	7 12.7%	2 3.6%	35 63.6%	11 20.0%	11	55
The bullying prevention resources assisted me in providing guidance and support for bullying issues with my patients.	0 0%	9 16%	2 4%	35 64%	9 16%	11	55
<b>Perceptions about Project</b>							
Participation in this project enhanced our practice			Agree 40 67%	Disagree 9 15%	Neither Agree nor Disagree 11 18%	No Response 6	n 60
If the BEST Tool was available I would use it to screen school age children as part of a routine office visit			42 71%	10 17%	7 12%	7	59
After the project I am comfortable discussing bullying with my patients (very comfortable or comfortable)			48 80%	12 20%	- -	6	60





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**Table 4** Focus Group Results

<b>Provider Training Feedback</b>	<b>Benefits/Barriers to use of BEST Survey Tool</b>	<b>Benefits/Barriers to use of Decision Tree</b>	<b>Clinical Challenges to Continued BEST Implementation</b>	<b>Changes in Clinical Practice as a Result of Pilot</b>
<b>Preexisting Knowledge:</b>  -Providers unaware of volume of patients negatively affected by bullying	None of the practices felt that the survey tool was too long or too cumbersome to use	Most often used by practitioner vs. office staff members	<b>Reimbursement Issues:</b>  -Bullying related discussions created extended time with patient/family that currently is not reimbursable.	All practitioners identified change in understanding of health consequences of bullying and bullying prevention best practices.
<b>Feedback About Training:</b>  -Training raised awareness about bullying related issues -Increased participants' skill level in talking with patients about bullying	Consistent feedback regarding time to talk about bullying and reimbursement issues.	Difficult to use at first, but easier with additional use. Over time, rubric easier to use	<b>Time Constraints:</b>  -Practitioners felt that 1.5 hours of training was insufficient but had difficulty identifying additional time to train.	Willingness to incorporate into existing EMR for ease of use if that became an option.
<b>Additional Training Requests:</b>  -How to differentiate bully vs. bullied -More in depth information about bullying and health consequences	All practices reported no negative feedback from child or parent regarding survey tool.	Practitioners felt that it was a guideline to assist with next steps.	<b>Provider Suggestions:</b>  -Offer CME for training -Consider placing screening tool within EMR for ease of utilization. -Provide enhanced reimbursement strategies to use for extended time with patients.	-Utilization of bullying prevention resources to help parents better interact with schools regarding bullying.
<b>Training Recommendations:</b>  -Separate content into two trainings: 1. Bullying in general 2. Utilization of BEST survey and Decision Tree  -More training on Decision Tree use	Two practices recommended "pre-screening" assessment with shorter survey to minimize time utilization.	Some felt that the Decision Tree needed to be easier to use.	<b>Provider Suggestions:</b>  -Develop resources for Spanish-speaking patients. -Need for additional mental health/behavior health services for patients experiencing high levels of bullying	Willingness to utilize BEST survey in same fashion as depression screening inventory <b>IF</b> billing issues can be resolved.

ar survey was available, 71% indicated that they would like to use it to screen for bullying. Eighty percent (80%) of respondents indicated they were "comfortable" or "very comfortable" discussing bullying with patients as a result of the project and 86% agreed that the tool helped to identify correlations between bullying exposure levels and symptoms. Interestingly, 42% said they have shared what they learned with others in their profession.

At the end of the pilot, six focus groups were held and each lasted approximately 45 minutes. Responses (n=42) were recorded and transcribed and a qualitative analysis was completed. The results of the qualitative analysis were grouped into five categories: provider knowledge about bullying, perceptions about the

BEST tool and the Decision Tree, clinical challenges with screening, and planned clinical changes as a result of the project. The focus group responses supported the APA survey findings that healthcare providers are aware of the child's vulnerability to bullying, but they lack knowledge, skill, and competence to respond in a therapeutic and consistent fashion. Responses from the focus group are summarized in Table 4.

### Discussion

All adults who are in contact with children need to understand the psychological, physical and academic consequences of bullying, and have the ability to intervene appropriately and effectively when they see or suspect a child is being bullied. Previous studies indi-



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cate that healthcare providers currently do not have the tools and/or necessary training to meet these needs, which results in their reluctance to broach the subject. To optimize the clinical encounter, previous research has shown that promising clinician-focused strategies to improve delivery of preventive services include screening and decision support tools (22).

This project demonstrates that a bullying screening tool and related training can provide healthcare professionals with the necessary skills and information to provide effective assessment and intervention. It also demonstrates that healthcare providers and staff want to address bullying issues with their patients, and when given the proper tools and training, they are willing to do so. The study also indicates that those in physician extender roles such as physician assistants and/or nurse practitioners may also be utilized to effectively address the subject of bullying with patients. Interestingly, 42% of participating healthcare providers and staff said they shared what they learned with others in their profession which may reflect their comfort with new knowledge. If effective bullying prevention strategies and screening tools are to be adopted on a wider scale, more professionals need to share what they know and encourage others to advocate for these tools.

It is important to note that practitioners did not feel that the screening process was challenging to implement or that it took too much time to incorporate into their daily practice. The data collected indicated that providers felt the training and survey tools were effective, that the project built capacity within their practices to address bullying, and that the screening tool was easy to use and something they would like to continue to use, especially if it were a reimbursable service. These findings suggest that if this screening process was available on a larger scale to healthcare providers many practices would adopt.

However, a significant barrier to a larger-scale implementation of this screening tool is the issue of reimbursement for the screening and counseling time within an office practice and the lack of its incorporation into an electronic medical record (EMR). Bullying prevention screening and its subsequent counseling requirements are at best only partially reimbursed by health insurance companies. Reimbursement systems need to be modified to foster this screening process. Additional work and research is needed in this area, but given the correlation between bullying and health consequences (9) it is important that providers and insurance companies consider including bullying prevention screening as a reimbursable service. Doing so would allow health-

care providers more time and flexibility to hold conversations with all their patients about bullying and not just the ones who are negatively affected by it. It would also enhance awareness of the correlation between exposure to bullying and its health consequences as they evaluate their patients.

### Limitations

Limitations of this project include that surveys of patients and staff relied on self-reporting and included all office staff that had direct contact with the patient, regardless of their role or ability to address the bullying-related issues. While it is important to survey all staff involved in implementing the project to understand whether or not the actual screening method worked in the clinical setting, questions specifically about the content of the screening tool and utilization of the Decision Tree would be better asked only of those who directly counseled patients and families, and questions about survey implementation be directed to the office staff. The pilot was a relatively small convenience sample. Future studies are needed to determine if the screening would be as effective in a larger setting and to study the effects of the bullying prevention resources for patients and families.

### Conclusion

Healthcare providers play a critical role in bullying prevention, but many lack education and resources to do so effectively. The pilot project demonstrates that using an evidence-based screening tool together with specialized training, appropriate anticipatory guidance, follow-up referrals when indicated, and bullying prevention resources was an effective method of increasing healthcare providers' capacity to address bullying issues in their practices. Creating safe and caring places for youth involves a comprehensive and coordinated effort on the part of all adults who come into contact with children, including healthcare providers.

### Authorship Credit

Conception and Design: AM, DS, SB, KJG

Acquisition of Data: AM, DS

Analysis and Interpretation of Data: AM, DS, SB, KJG

Drafting, Revising and Final Approval of the Article: AM, DS, SB, KJG

### Permissions

Permission to use Bull-M was granted by the author Arnulfo Ramose-Jimenez.

IRB approval was given for this project by The Children's Institute in Pittsburgh, PA.



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### Conflicts of interests

The project was funded by a grant from the Highmark Foundation, Inc., Pittsburgh, PA. Project funders had no role in the project development, implementation, evaluation, or report writing.

No other competing interests was declared.

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## Research and Best Practice

# Very Integrated Program (VIP): Smoking and other lifestyles, co-morbidity and quality of life in patients undertaking treatment for alcohol and drug addiction in Sweden

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## Abstract

**Background** Most patients with alcohol and drug addiction have other risky lifestyles and non-communicable diseases (NCDs), adding to their morbidity and pre-mortality. Those are, however, potentially preventable. The aim was to identify and compare the patients in treatment for alcohol and drug addiction and identify important factors for high risk.

**Methods** Data was collected prospectively by interviews, questionnaires, examinations and laboratory tests regarding demographics, smoking, overweight, malnutrition, sedentary lifestyle, heart, lung and liver diseases, diabetes and quality of life. High-risk was identified by >2 NCDs and risky lifestyles.

**Results** 322 (192 and 130) patients participated, aged 52 years in median (ranging 24-80) and 67% men. Only 7% had no other risky lifestyles and NCDs. 62% were smokers, 11% in risk of malnutrition, 36% physical inactive and BMI was 27 (17-50). Furthermore, 41% had cardiovascular illness, 27% liver and 25% respiratory diseases, and 7% diabetes. After adjustment for confounders, drug addiction was significantly associated to younger age (46 vs. 56 years; OR 0.92 [CI 0.89-0.94]), unemployment (85% vs 66%; 0.35 [0.17-0.72]) and liver disease (49% vs. 12%; 0.21 [0.11-0.40]). The high-risk group was significantly older and more often unemployed. Health-related quality of life was not different between the groups.

**Conclusion** The large majority of patients in treatment for alcohol and drug addiction have common risky lifestyles and NCD comorbidity. They also have similar conditions, including quality of life. This may be important when planning a future very integrated program (VIP) of health promotion.

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## Introduction

World-wide, alcohol and drug represent three and a half million of annual death, respectively, and cause more than 5% of the global disease burden (1;2). They are followed by serious consequences of social and mental health in addition to the increased morbidity and pre-mortality. Furthermore, patients with alcohol and drug addiction often have other risky lifestyles and non-communicable diseases. They include heavy smoking, poor nutrition and physical inactivity, as well as related illness, e.g. cardiac and lung diseases and diabetes; (3-6) all of which is adding to the detrimental effect of alcohol and drug on health, morbidity and mortality (7).

Obviously, the priority is and should be on the addiction treatment per se, when patients seek help for alcohol and drug addiction. As in many other countries,

the addiction treatment in Sweden follows national guidelines involving psychiatry and other specialist competences with a focus on dual diagnoses as well as psycho-social intervention (8). In the daily routines, the additional lifestyle factors are paid attention only to a lesser degree. In Sweden, the overall frequency of unhealthy lifestyles is not high compared to other countries; (7) only 9% of both women and men are smokers, 44% of women and 58% of men are overweight or obese, while 21% and 9%, respectively, have sedentary work. The life expectancy is long, 84 years for women and 81 for men in 2016 (9) and the health-related quality of life high (10).

Never-the-less, vulnerable and disadvantage groups are affected hard by the additional unhealthy lifestyles, which have a social gradient. As an example, the smoking rate and the pre-mortality are 2-4





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times higher among persons with psychiatric diseases, including substance use disorder (11-14). In Sweden, the smoking rate for this group has been reported up to 40-56% (15).

However, as the additional unhealthy lifestyles are in principle modifiable, there seems to be a further potential for improved health, morbidity and mortality, if including them in the addiction treatment. This would require a very integrated program (VIP). A relevant question to be answered is how patients in treatment for alcohol and drug addiction may benefit from a similar program? A necessary step towards harvesting the potential for improvement via VIP targeting lifestyle intervention is to characterize the health profile of these patient groups.

Therefore, the aim of this study was to evaluate the additional unhealthy lifestyle, co-morbidity and quality of life among patients in treatment for alcohol and drug addiction. Furthermore, we wanted to identify important factors for high-risk patients.

## Methods

### Settings

This study was conducted on patients in treatment for alcohol and drug addiction at the Addiction Centre (four units) and the Integrated Community Care (Integrerad Närsjukvård) (one unit) in Malmö, Region Skåne in Southern Sweden. Patients were included from two wards of alcohol addiction & social integrated drug addiction and of socially non-integrated drug addiction, respectively, as well as one outpatient clinic for alcohol addiction and two for agonist treatment of heroin addiction. The Addiction Centre in Malmö served a population of 1.3 million inhabitants, about 13% of the total Swedish population. An average of 738 patients per year were seeking care in the study period.

### Design

This study was a comprehensive survey with data collection via interviews, questionnaires, physical examination and laboratory tests (protocol published in [clinicaltrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT01414907), NCT01414907).

### Participants

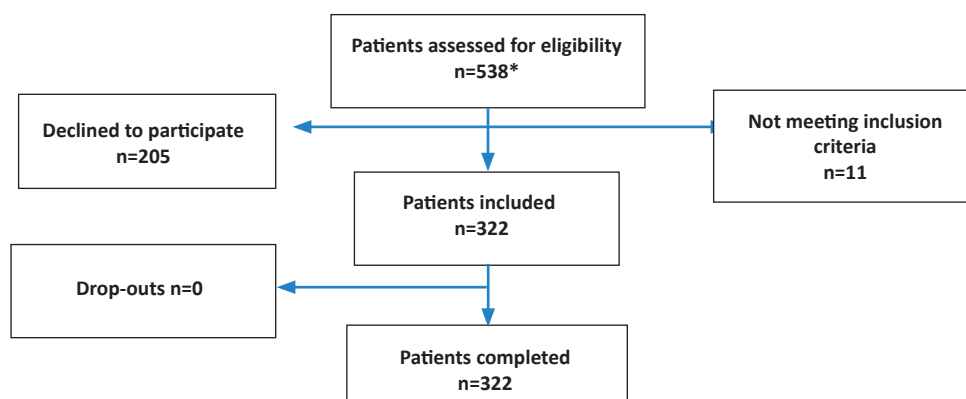
All patients seeking care were considered for recruitment. The recruitment was conducted by the contact persons from nursing staff in each unit and the recruitment was conducted in the period April 2011 to September 2013. A total number of 538 patients were considered eligible and were contacted for inclusion in the study, of which 322 (60%) patients entered the survey after informed consent (Figure 1). Patients with both alcohol and drug addiction were grouped according to the clinical action diagnosis.

All adult out-patients or hospitalized patients with a diagnosis of alcohol or drug addiction according to the ICD-10 criteria (16) were considered eligible for inclusion. The exclusion criteria were pregnant or breastfeeding women, withdrawal of informed consent or missing capability to give informed content due to active psychoses, delirium, seizures, dementia, heavy influence of alcohol and/or drugs, loss of consciences, age <18 years or language barriers.

### Data collection

After inclusion, the patients were screened for health determinants according to the international Health Promotion Hospitals Data form (17) and for the following non-communicable diseases (NCD co-morbidity); heart and lung disease, diabetes, and liver injury categorized into compensated and in-compensated co-morbidity. Patients with a new diagnose or in-compensated co-morbidity were referred to the primary care or specialists according to the guidelines of the addiction centres.

Figure 1 Trial profile





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**Lung disease:** The history and symptoms were registered by the MRC breathlessness scale (18). The lung function was measured by spirometry (PC Spirometry with Schiller Spirosensor SP 250 and on-board SEMA Data Management Software), and the concentration of oxygen and carbon monoxide in blood (Pulse Oximeter MD300C2; NeoMed CO-Check).

**Heart disease:** The history and symptoms were registered by the New York Heart Association functional classification system (19). The tests were ECG (Schiller Cardiovit AT-101), pulse and blood pressure (Pulse Oximeter MD300C2 and Panasonic EW3106 blood pressure monitor).

**Diabetes:** The history was registered together with blood glucose (HemuCue Glucose 201RT), and urine test for sugar, protein and ketoses (Roche Combur-Test® strips).

**Liver disease:** The history was registered together with analyses of liver enzymes (ALAT, ASAT) and antibodies for hepatitis.

All patients completed the SF-36 questionnaire for self-evaluated health and functionality (20).

After the data collection, the results were communicated to all patients orally and in written. Based on the results, the patients were offered a tailored brief intervention of about 5-10 minutes.

### Outcomes and definitions

The outcome measures were the prevalence of smoking, overweight, risk of malnourishment, physical inactivity as well as the NCDs: cardiovascular illness, lung diseases, diabetes and liver diseases.

We defined the patients as current smokers or snuff users if they responded affirmatively to the question "Are you smoking / using snuff daily?". The overweight was defined as the Body Mass Index (BMI) more than 25 kg/m<sup>2</sup> or the waist measurement more than 80 centimetres for woman and 94 for man. The malnourishment was defined as the BMI less than 20.5 kg/m<sup>2</sup> or confirmed weight loss, reduced food intake or severe stress-metabolism according to the clinical ESPEN guidelines on national risk screening (21). The physical inactivity was defined as confirmed less than 30 minutes of physical activity per day.

The patients with two or more co-morbidities and two or more lifestyle related risk factors were defined as high-risk patients. The rest of the patients were regarded as low risk patients.

### Ethical issues

The project was approved by the Scientific Ethical Committee (Dnr 2010/470) and the Swedish Data Protection Agency. The patients participated after informed consent.

### Statistical methods

All data were continuously included in a research database and anonymously analysed for the description of the prevalence of health determinants and co-morbidity in alcohol and drug dependents at the Addiction Centre Malmö. All statistical analyses were conducted in IBM SPSS 23 statistics package. Health determinants and co-morbidity as well as quality of life were compared for patients with alcohol and drug addiction. Analyses for significant factors associated with high risk patients were performed using un-adjusted analyses followed by adjusted analyses presented as odds ratio (OR) and 95% confidence interval (CI). If the CI did not include the value 1, the result was considered significant.

### Results

A total of 322 patients were included in the survey. Of these, 106 (33%) were women and 216 (67%) men, and 192 (60%) were diagnosed with alcohol addiction, while 130 (40%) were addicted to drugs, and 97 (30%) had both alcohol and drug addiction. Overall, only 23 (7%) patients had no lifestyle related risk factors in addition to the alcohol and drug addiction. A total of 93% patients had at least one and 54% patients had two or more additional risk factors. The prevalence of at least one NCDs was 70%, and 26% had two or more NCDs. Cardio-vascular diseases were most frequent (41%), followed by respiratory illness (25%) and liver diseases (27%), while fewer had diabetes (7%). Only 6 patients (2%) had no risk factors neither NCDs.

The un-adjusted analyses showed that the patients with drug addiction were more often unemployed, homeless, smoking and suffering from liver disease and at a younger age compared to patients with alcohol addiction, who had a higher frequency of cardiovascular diseases (table 1). The adjusted analyses confirmed the significant younger age (OR 0.92; CI 0.89-0.94) as well as more frequent unemployment (0.35; 0.17-0.72), homelessness (0.88; 0.41-1.93) and liver disease (0.21; 0.11-0.40) associated to drug addiction (table 1).

After adjustment, factors associated with the high-risk group defined by at least two lifestyle-related risk factors and two NCDs were older age and unemployment (table 2).



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**Table 1** Characteristics of 322 patients (% or median and range) and comparison of patients with alcohol and drug addiction. The results are presented as un-adjusted and adjusted analyses with odds ratio (OR) and 95% confidence interval (CI); significant results are highlighted in bold.

	Total 322	Alcohol 192	Drug 130	non-adjusted OR (95% CI)	Adjusted OR (95% CI)
<b>Demographic data</b>					
Age (1 missing)	52 (24-80)	56 (25-80)	46 (24-77)	<b>0.91 (0.89-0.93)</b>	<b>0.92 (0.89-0.94)</b>
Men (0 missing)	67%	69%	65%	0.86 (0.54-1.39)	
Married/living with partner (12 missing)	72%	67%	74%	0.64 (0.38-1.07)	
Unemployed (0 missing)	73%	66%	85%	<b>0.77 (0.68-0.88)</b>	<b>0.35 (0.17-0.72)</b>
<b>Educational level after 9 to 12 years at basic level (11 missing)</b>					
No or short	18%	16%	19%	0.80 (0.45-1.44)	
Up to three years	60%	59%	62%	0.91 (0.57-1.44)	
Three years or more	19%	21%	16%	1.36 (0.76-2.44)	
<b>Housing (11 missing)</b>					
Homeless	15%	11%	20%	<b>0.49 (0.26-0.91)</b>	0.88 (0.41-1.93)
<b>Risky lifestyles (other than alcohol and drug addiction)</b>					
Daily smokers (7 missing)	62%	53%	76%	<b>0.71 (0.60-0.83)</b>	0.58 (0.32-1.08)
Cigarettes smoked per day	20 (2-60)	20 (4-40)	20 (2-60)	1.01 (0.99-1.03)	
Daily snus users (12 missing)	24%	25%	24%	1.05 (0.71-1.56)	
Body mass index (0 missing)	27 (17-50)	27 (19-43)	26 (17-49)	0.99 (0.95-1.04)	
Risk of malnourishment (0 missing)	11%	9%	15%	0.51 (0.31-1.04)	
Physical inactivity (7 missing)	36%	34%	32%	1.09 (0.79-1.49)	
<b>Non-communicable diseases (0 missing)</b>					
Cardio-vascular diseases	41%	52%	25%	<b>2.09 (1.50-2.91)</b>	1.78 (0.97-3.25)
Respiratory illness	25%	27%	23%	1.17 (0.79-1.73)	
Diabetes	7%	9%	5%	1.91 (0.77-4.73)	
Liver disease	27%	12%	49%	<b>0.24 (0.16-0.37)</b>	<b>0.21 (0.11-0.40)</b>

There was no significant difference regarding the health related Quality of Life between patients with alcohol and drug addiction or between the high- and low-risk patients (figure 2).

## Discussion

Overall, the study population represents a disadvantaged and frequently ill sub-group of the Swedish population. Though several similarities, the patients with alcohol and drug addiction have some significant differences. Patients in treatment for alcohol addiction were older, whereas patients in treatment for drug addiction were more often smokers and un-employed as well as having a higher prevalence of liver disease. Across the addiction groups, high-risk patients defined by at least two risky lifestyles and two NCD co-morbidities were

older and more often unemployed. Interestingly, quality of life did not differ across the addiction groups or high- and low-risk groups.

Unhealthy lifestyles are frequent among patients with addiction. The very high rate of smoking among patients with drug addiction has also been described in the literature (22). Among patients with alcohol addiction, the prevalence of smoking has been reported higher, ranging 80-90% in studies from other countries (23;24) compared to 53% in our study. This may be due to the general low smoking rate of 13% in Sweden (25) and that the other studies may have been performed in earlier time, where the smoking rate was higher than today.



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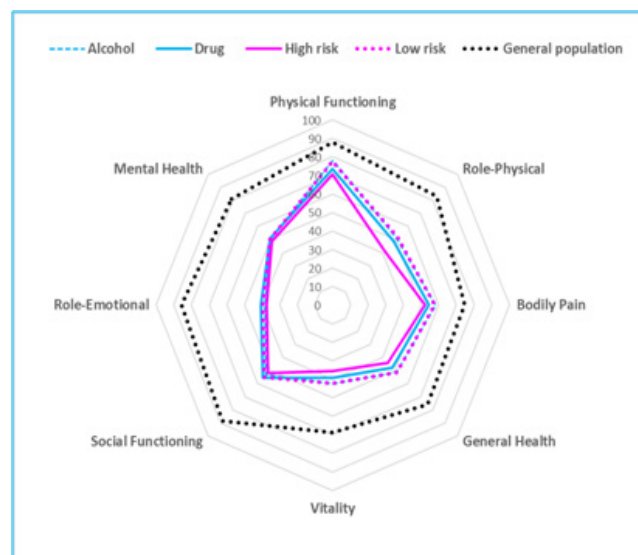
**Table 2** Characteristics of the 322 patients with alcohol and drug addiction categorized into a high-risk and a low-risk group covering other lifestyles and co-morbidity. The results are presented as un-adjusted and adjusted analyses with odds ratio (OR) and 95% confidence interval (CI); significant results are highlighted in bold.

	High risk 57	Low risk 265	Un-adjusted OR (95% CI)	Adjusted OR (95% CI)
<b>Demographic data</b>				
Age (1 missing)	56 (24-80)	52 (24-77)	<b>1.02 (1.00-1.05)</b>	<b>1.03 (1.00-1.07)</b>
Men (0 missing)	68%	67%	1.08 (0.58-2.00)	
Alcohol addiction (0 missing)	61%	60%	0.92 (0.51-1.65)	
Married/living with partner (11 missing)	26%	27%	0.97 (0.50-1.85)	
Unemployed (0 missing)	88%	70%	<b>3.05 (1.32-7.02)</b>	<b>2.46 (1.03-5.85)</b>
<b>Educational level (11 missing)</b>				
No or short	21%	17%	1.33 (0.65-2.72)	
Up to three years	60%	61%	0.96 (0.53-1.72)	
Three years or more	16%	20%	0.76 (0.35-1.65)	
<b>Housing (11 missing)</b>				
Homeless	21%	13%	0.64 (0.35-1.15)	

A recent observational study of 36, 370 adults with moderate to harmful drinking reported that 61% were physically inactive, i.e. physical activity less than 150 minutes per week (26). This number is almost two times higher than our findings. However, 150 minutes were lower than the definition of physical inactive used in our study; i.e. less than 210 minutes per week, and therefore more persons would be considered physical active in the previous study (26).

Many types of addiction are associated with serious deficiencies in nutrition (27;28). Our study did not find a significant difference between patients in treatment for alcohol and drug addiction. The reason could be due to national differences in healthcare and social support, but also to differences in the patient characteristics. All patients in our study were in contact with healthcare services. Though Sweden is a high-income country, about one of seven patients in our study were homeless at the time of inclusion, meaning that they had no permanent housing, but would be staying with friends or relatives, in shelters or even parks. Never-the-less, the routine addiction treatment in the recruiting units included social services (such as offering accomodation, food supply, family support and others) delivered by trained social workers according to need of the patients.

**Figure 2** Results of the eight dimensions of SF-36 among the 322 patients categorized into alcohol and drug addiction as well as into high-risk and low-risk groups.



Chronic medical diseases are closely related to the addiction substance it-self as well as the additional lifestyles. This has been investigated in numerous cohort studies and meta-analyses (1-7). In our addiction study, the only significant difference was a higher frequency of liver diseases among the drug addicted patients that exceeded the prevalence of liver damage related to alcohol addiction. The communicable hepatitis (type B and C) is the main reason, which has also widely described in the available literature (29;30).

The results of this study impact our future research, as it seems that the core structure could be similar across the addiction groups, but that we rather than the mono-factorial health promoting, such as smoking cessation intervention exclusively, should consider a multi-factorial integrated program - also allowing individual tailoring. We have planned to evaluate and report the effect of such a VIP program in a randomised design at a later stage.

### Bias and Limitations

This study has several bias and limitations. The inclusion rate of 60% may raise a selection bias. Unfortunately, we had no information about the non-included and cannot perform a sensitivity analysis to showcase, if the 60% response rate was associated to some specific exposure or outcome variables that are included in our survey. Furthermore, we had no information on other





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mental disorders than the addiction diagnosis. However in this region of Sweden, patients with severe mental disorder in addition to their addiction are usually treated in the psychiatric clinics outside the Addiction Centre. A major limitation for generalisation is that the study was conducted in Southern Sweden in Malmö City, and there may be a difference in socio-demographic and health profile characteristics in other populations. The relatively high number of women and the lack of significance across gender are considered a strength for generalisation. Due to the bias and limitation, the generalisation should however be considered carefully.

### Conclusion

We conclude that large majority of patients in treatment for alcohol and drug addiction have additional lifestyle related risk-factors and NCD co-morbidity. They also have many similar conditions, including quality of life. This may impact the planning of future research and development to improve health, and a common program allowing individual tailoring should be considered.

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## Research and Best Practice

# Standards for Children and Adolescents' health promotion in Hospitals: The Task Force HPH-CA experience

Ilaria Simonelli, Raquel Mullen, Giulio Fornero, Arian Tarbal Roquer, Lagle Suurorg, Dora Scheiber, Domenico Tangolo, Emanuele Torri

## About the Task Force

The Task Force on Health Promotion for Children and Adolescents by Hospitals (HPH-CA) was set up in April 2004 and is composed by 28 members from 16 European countries, 5 non-European countries, from one European Network.

The Task Force mandate includes the Promotion of the respect of children's rights in hospitals, the Mapping and evaluation of current practices of health promotion; the Elaboration of health promotion tools.

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## Background

In these years the Task Force on Health Promotion for Children and Adolescents in and by Hospitals and Health Services (HPH-CA) has been working on several areas: the respect of children's rights in hospitals; the mapping and evaluation of current practices of health promotion addressed to children and adolescents in hospitals; childhood health promotion aimed at families, education professionals and healthcare assistants; knowledge exchange; healthcare professionals' health literacy in terms of Children's Right to Health in Hospitals and Healthcare settings. In 2009, the Task Force created a Self-evaluation Model and Tool (SEMT) on the Respect of Children's Rights in Hospital, revised and adopted by WHO for assessing children's rights in several countries like Moldova, Kyrgyzstan, Tajikistan. In 2012, the Task Force drafted a Manual and Tools on Children's Rights in Hospital and Health Services. The aim was to provide tools that can be used in improvement programs within hospitals and health services for advancing the respect, protection and fulfilment of children's rights.

## Purpose

In 2017/2018, the Task Force has started working on Standards and Indicators on Health Promotion for Children and Adolescents in Hospitals and Healthcare Services to give a specific contribution on children and adolescents' health promotion needs and to create a practical and easy tool to monitor standards. The standards and indicators took inspiration from the concepts, guidelines and out-

comes of the WHO Standards for Health Promotion in Hospital (2004) and from the Child Rights-based Approach developed by the UN Agencies (WHO, UNICEF, UNESCO).

## Methods

The Standards and indicators definition process implied the following steps:

1. A drafting phase where the TF prepared a first document to be reviewed by the WHO-CC Bispebjerg University Hospital, by the HPH Governance Board reference person for the Task Force, and by the HPH Task Force on Implementation and Monitoring of Standards;
2. A testing phase of the revised document in collaboration with Spain (San Joan de Déu Children's Hospital), Estonia (Tallinn Children's Hospital), Italy (Regina Margherita Hospital), USA (Hospital DRMC Medical Center), Hungary (Budapest pediatric General Practitioner and the Second Department of Pediatrics of the Semmelweis University). The testing phase has been carried out through the involvement of an interdisciplinary groups composed by pediatricians, nurses, managers, other technical figures and coordinated by the TF Members. The groups of professionals have been asked to fill in one evaluation sheet and one questionnaire. The results of the testing phase (evaluation sheet and questionnaire) have been systematized by the TF coordinator;
3. An evaluation phase, reporting the scores on the self-evaluation of the standards and indicators level of



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achievement (evaluation sheet results). This phase showed as achieved the standards and indicators related to information and presence of official documents, while other standards are considered as partially or not completely achieved yet (e.g. registered health promotion needs information in medical records and assessment tools and reports for health promotion needs are indicators that still have to be improved). The questionnaire results on the testing process showed how standards need to be shared with children and with families, translated into practical tools, become simpler. In particular, some professionals suggested to '(...) use it to guide interactions with patients, ensure patient safety, and in evidence-based treatment', and they suggested to create 'A sheet of checklists and quick scan cards as well as pads for patient input on how we are doing with the studies'. Also, the organization of meetings has been considered useful: 'Departmental meetings for making changes in structure and communication when patients enter the hospital'.

### Outcomes

The TF Standards and indicators have been revised taking into account professionals' evaluation and comments and are accompanied by a quick evaluation sheet (Figure 1). The Task Force is working on modalities and

timeframe for the dissemination of the tool in collaboration with the International HPH Network, with the Italian HPH Network and with the Trentino HPH Network Coordinator.

### Conclusions and recommendations

1. Make tools simple to be used by professionals in daily practice
2. Improve children's and families' involvement in order make tools more respondent to their needs
3. Enhance professionals' attention to health promotion as key aspect of quality of life in hospitals and healthcare services
4. Promote children's rights and needs in hospital settings as key policy for future services planning

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Figure 1 Revised Standards and Indicators: quick evaluation sheet

QUICK EVALUATION SHEET					
A: Achievement B: Moderate achievement C: Partial achievement D: Minimal or no achievement*					
INDICATORS	ASSESSMENT				
Presence of a written policy on health promotion published in documents, newsletters, booklets, website	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Yearly consultations with children and adolescents	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Mention of children's rights in the written policy	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Health promotion activities registered in medical records	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Provision of child friendly tools to express children's views (cards, pads, children's associations involvement, children's boards, ...)	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Specific Departments meetings on communication with patients	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Presence of information materials	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Meetings with children, families and associations	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Presence of spaces for health promotion purposes (hosting parents and peers, hosting associations, hosting schools, playground, ...)	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Adoption of official documentation on children's safety	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Agreements with community stakeholders (e.g. GPs, ICTs companies, Children's Associations, Territorial Healthcare Services, ...)	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A
Check lists for health promotion activities evaluation	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	<input type="checkbox"/> N/A

\* Rating scale: Agence nationale d'accréditation et d'évaluation en santé (ANAES)



# Abstracts selected for publication

At the 26<sup>th</sup> International HPH Conference in Bologna, 10 abstracts were awarded for their scientific level. The abstracts were chosen amongst all the abstracts presented in the Conference Abstract Book.

## *From experience towards large scale implementation – the strategic objectives of the Austrian Network of Health Promoting Hospitals and Health Services*

BRUNNER Gernot, CHRIST Rainer

### Background/Problem/Objective

The Austrian Network of Health Promoting Hospitals and Health Services has a tradition of more than 20 years with a stock of active member organisations. However, we are still far from a preferable level of re-orientation of health systems towards health promotion in Austria.

### Methods/Intervention

The Austrian network undertook a process to reflect how best to boost its impact on the desired transformation process. It started with a retreat of the management board of the network and continued with consultations of the member organisations during the national conference and with a questionnaire. The benefits of network activities have been addressed as well as obstacles and challenges.

### Results (of evaluation)

Five essential objectives have been identified for Austria which frame the strategic directions of the network for the coming years. A high priority is given to addressing the need and potential of health promotion in health services towards stakeholders and the strategic public. A legal basis for health promotion in health services and secured financing of activities is a requirement claimed by the network. In addition, health promotion must become a mandatory part in the curricula of medical and nonmedical health professionals. To reinforce the impact of the network on politics public relations activities will be improved to give the network more visibility and to emphasize the competence of the network. The benefit of being a member of the network also needs continued attention. Health promoting leadership in health care organisations and health promotion for staff will be main topics in capacity building activities.



### Conclusions/Lessons learned

These activities and maintenance of a knowledge base on health promotion in health services should help to spread good practices beyond the network and to gain further network members. The undergone strategic development was a helpful process to focus the activities of the network, which still depends on limited resources.

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## Research and Best Practice

### *Prescription patterns and consequences of Chinese herbal medicine in pregnant women: A population-based study*

WU Hsien-Chang, WU Dai-Lun, CHANG Wei-Chuan, WEN Shu-Hui

#### **Background/Problem/Objective**

Pregnant women using traditional Chinese medicine (TCM) is gaining popularity worldwide. The use of Chinese herbal medicine (CHM) during the perinatal period is common in Chinese communities. To treat illness during pregnancy with TCM, which is usually promoted as being natural and safe. However, the use of some herbs during pregnancy might still lack in safety and efficacy. Hence, in this cohort study, the prevalence and diagnoses of using CHM during pregnancy in Taiwan have been explored.

#### **Methods/Intervention**

Pregnant women aged 18-50 years were selected from the longitudinal health insurance database (LHID) between 2001 and 2011 using the 2-million random samples of the NHIR Database. Prescription patterns of CHM and obstetrics diagnoses was collected from all TCM outpatient records during pregnancy. CHM prescription records were further categorized on the before or after first prenatal visit during pregnancy. Descriptive statistics such as numbers and percentages were provided for the distribution of primary diagnoses codes and CHM use.

#### **Results (of evaluation)**

A total of 15,162 pregnant women received CHM during pregnancy with CHM utilization rate of 20.6%. Top 3 obstetrics related diagnoses codes were disorders of menstruation and abnormal bleeding from female genital tract, hypertension complicating pregnancy and excessive vomiting in pregnancy. Before the first prenatal visit, the most common used single herb was *Cyperi Rhizoma*, followed by *Cuscutae Semen* and *Leonuri Herba*. The top 3 herbal formulas were *Dang-Guei-Shao-Yao-San*, *Jia-Wei-Siao-Yao-San* and *Wen Jing Tang*. After the first prenatal visit, *Scutellariae Radix* was the most frequent single herb; next was *Atractylodes macrocephala rhizome* and *Cortex Eucommiae*. *Dang-Guei-Shao-Yao-San* remained the most commonly used herbal formula. The following commonly used herbal formulas were *Bao Chan Wu You Fang* and *Xiang Sha Liu Jun Zi Tang*.

#### **Conclusions/Lessons learned**

TCM is popular among pregnant women in Taiwan.

However, the safety of TCM was needed to be monitored during perinatal period requires future investigation.

#### **Comments**

This study focuses on maternal health promotion, especially the safety of traditional Chinese medicine for pregnant women. The use of traditional Chinese medicine which have promoting blood circulation effects in irregular menstruation, women should be aware of the issue of pregnancy.

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### *Effectiveness of Vitamin D Supplementation in the Relief of Dysmenorrhea: Meta-Analysis of Randomized Controlled Trials*

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#### **Background/Problem/Objective**

Dysmenorrhea is one of the most common gynecological complaints among young females. Non-steroidal anti-inflammatory (NSAID) drugs are commonly used for symptom relief. Due to the potential risks caused by NSAID, vitamin D is considered as another feasible way for treatment as to its anti-inflammatory effects and evidences in vitamin D receptors gene in the pathogenesis of menstrual dysfunction. The objective of the study is to assess the effects of vitamin D supplementation in relieving dysmenorrhea.

#### **Methods/Intervention**

We searched PubMed and Cochrane Central Register of controlled trials for relevant randomized controlled trials (RCTs) and conducted a systematic review and meta-analysis from inception to 1 January 2018. The search strategy was composed of "vitamin D or 25-hydroxyvitamin D" and "dysmenorrheal or endometriosis or pelvic pain". The primary outcome was the standardized mean difference (SMD) and p value of pain scales in dysmenorrhea treated with vitamin D or placebo.

#### **Results (of evaluation)**

Of 134 records obtained from our search, four RCTs with 185 participants (91 patients in the vitamin D group and 94 patients in the placebo group) met our inclusion criteria. Compared to the placebo, vitamin D



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supplementation did not significantly improve relief in dysmenorrhea (SMD: -0.47; 95% confidence level [CI]: -1.20 to 0.27).

### Conclusions/Lessons learned

Vitamin D treatment did not show a significant effect in reducing dysmenorrhea and/or pelvic pain in our study. Limited by the small number of participants for the current reports, further rigorous and larger studies are still needed to determine the clinical effects of vitamin D supplementation with more objective measures.

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### *Transforming Practitioners and Practice through work-based Learning*

FINN Frances

#### Background/Problem/Objective

There is a growing imperative that postgraduate nursing education develops both practitioners and practice. This research explores trajectories of change during and following work-based learning and asks 'how' different cultural tools and processes situated within work-based learning frameworks, in addition to social and personal contributions, influences and sustains positive outcomes.

#### Methods

A qualitative case study design was employed to investigate the influences and outcomes of work-based learning over time. Interviews with past students and support practitioners associated with one work-based learning programme were conducted across acute and community healthcare services in Ireland. Individual documentary analysis of student learning logs and portfolios was undertaken using process tracing methods, combined with a thematic analysis of all data sources.

#### Results

Workplace affordances, versus constraints, in addition to the role of cultural tools and other people in scaffolding learning within the programme framework, combined with learner agency and intentionality revealed the duality of personal and social contributions required for successful work-based learning outcomes. Practitioner outcomes of knowledgeability, relational agency and reflexivity, were linked with sustained prac-

tice development outcomes, in the remaking of cultural practices. Examples of practice transformations include service user education and advocacy initiatives in mental health and health education workshops in child and adolescent health.

### Conclusions

Learning at, for and through work is a combined endeavour of individual intentionality, agency and engagement with work-based learning opportunities, tools and processes, in addition to the degree of social support and workplace affordances. The opportunity to promote health through practice development initiatives within primary care and acute health services is a significant potential of work-based learning in post-graduate nurse education.

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### *Self-rated health and its relationship to health behavior for the elderly by using the Happiness & Health Feeling Scale (2 HFS)*

Kaori TERAOKA, Kazuyo FURUKAWA, Fumie ONO, Tamiki HIRASAWA, Kyota NEGISHI, Norio SHIMANOUCHI, Minako SUZUKI

#### Background/Problem/Objective

To achieve the better health support and self-actualization for the elderly, it is significantly important to measure their perception of happiness/health.

#### Methods/Intervention

A preventive care program (exercise, oral, nutrition, cognitive function) was administered to 17 elderly people over 65-years old, living in Tokyo (once a week for 120 minutes for 8 weeks). We examined if there was any change in the participant's Self-rated health in their daily lives by using 2HFS and the questionnaire on their physical/mental and social aspects at the end of the whole program. CS analysis was used for 2 HFS data analysis.

#### Results (of evaluation)

In the CS analysis of 2 HFS, there was a moderate correlation between the overall evaluation of happiness and "self-esteem". From the questionnaire on Self-rated health, the categories of "pain", "confidence", "anxiety for the future", "Increased communication with family/friend, making telephone calls, and outings" continued to stay low in their scores.



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### Conclusions/Lessons learned

This research (examination) suggested that both 2HFS and the questionnaire on Self-rated health had similar results in the categories related to low self-esteem and poor Self-rated health. This indicated that these measures were able to detect underlying emotions of the elderly which were not surfaced to their daily behaviors/activities. By administrating 2HFS to measure the elderly's happiness and health perception, we expect that it would bring improvements in their health behaviors, and Self-rated health.

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### *C.H.A.N.G.E.D.: Developing and testing an innovative health promotion initiative for promoting health behavior change and self-management among people with diabetes in a national health service organization*

LEVIN-ZAMIR Diane, WEINTZIGER Orna, ROTEM Mina, TSIPPEL Dalit, KEY Calanit, SOLOMON Gavriela, LIEBERMAN Nicky

### Background/Problem/Objective

The increasing prevalence of diabetes challenges health systems to develop, test and implement innovative health promotion methods for patient self-management and effective, long-term lifestyle change (DSME). The main study objective: to test an innovative intervention program, promoting lifestyle changes, medication adherence and health outcomes.

### Methods/Intervention

A representative sample of 502 Jewish and Arab adults with uncontrolled Type 2 diabetes was recruited from the primary care registry of Israel's largest health service organization. While continuing normal care, half were randomly assigned to a comparison group, and half participated in a special program: 6 individual face-to-face sessions and up to 14 telephone support sessions, with one of a multi-disciplinary group of 15 health-promoting coaches, recruited and trained in culturally appropriate behavior change methods. Health behavior and quality-of-life indicators were reported before, 6, 12 and 18 months after the program. Glycemic control (HbA1C), BMI, glucose, and lipids were measured prior to 6, 12, 18 months after the program.

### Results (of evaluation)

Findings showed significant improvement in physical activity ( $p<.0001$ ), eating habits ( $p<.001$ ), and quality-of-life indicators ( $p<.03$ ) for program participants. Both groups improved equally for foot examination ( $p<.0001$ ). While neither group reported significant improvement in medication adherence, glycemic control measures showed highly significant improvement ( $p<.0001$ ) 6 months after intervention and less after one year. The opposite true for the comparison group. Results were analyzed for gender, ethnicity, age and other personal measures.

### Conclusions/Lessons learned

Introducing a health-promoting coach into the array of DSME methods augmenting primary care, offers promising possibilities for empowering people with chronic conditions to adopt health promoting behavior. Improvement in comparison group may be attributed to intense follow-up. Ongoing support for long-term maintenance should be considered.

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### *The level of self-rated knowledge among the patients with early rheumatoid arthritis in Estonia: 2-year follow-up*

PÖLLUSTE Kaja, MÜLLER Raili, KALLIKORM Riina, LEMBER Margus

### Background/Problem/Objective

Previous study in patients with rheumatoid arthritis (RA) in Estonia demonstrated that the self-reported ratings of knowledge about the disease were rather low, first of all among the patients with shorter disease history. This study aims to explain the trends in level of knowledge among the patients with early RA during the two-year follow-up period.

### Methods/Intervention

The study sample consisted of 79 consecutive patients (aged 19-79 years, mean 54.2; of them 25% male patients) referred to Tartu University Hospital with first ever RA diagnosis in 2012-2014. Data about patients' background, disease characteristics, and disease-related knowledge were collected three times with the one-year interval by a self-administered questionnaire. Descriptive statistics and regression analysis were used to explain the trends of self-rated level of knowledge and association between these ratings and other variables.



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### Results (of evaluation)

During the two-years follow-up, the proportion of well-informed patients increased significantly ( $p < 0.001$ ) in all areas: nature and prognosis of RA from 30% to 64%; treatment options from 15% to 57%; medication from 21% to 51%; and targets of treatment from 33% to 58%. The better ratings of the level of knowledge were independently related to the younger age, female gender, and higher level of education. The strongest positive association was found between the ratings of self-rated knowledge and information received from the rheumatologist in all areas, which remained significant after adjusting for age, gender, and education, too. No significant associations were found between the ratings of the level of knowledge and the variables describing the disease activity and health status.

### Conclusions/Lessons learned

The level of knowledge increased rapidly during the first years of RA; the adequate information from the rheumatologist about the disease, medication, treatment options and targets plays the most important role in good disease-related knowledge among the patients with early RA. The long-term impact of disease-related knowledge on the patients' health outcomes should be studied in the future.

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### *The perspectives of people who use drugs and health care providers about what leads to illicit drug use during hospital admissions*

STRIKE Carol, ROBINSON Samantha, GUTA Adrian, CHAN CARUSONE Soo, TAN Darrell, O'LEARY Bill, UPSHUR Ross

### Background/Problem/Objective

People who use drugs (PWUD) have higher rates of emergency room visits and hospital admissions, and may encounter stigma, perceive receiving substandard care, and leave hospital before discharge. This is especially concerning for PWUD with complex health needs, including those with or at risk for HIV. Few studies have examined illicit drug use in acute settings despite unman-aged withdrawal being a predictor of leaving hospital early.

### Methods/Intervention

We conducted semi-structured interviews with adults living with HIV and/or HCV who self-identified as

PWUD, and with health care providers (HCP) on in-patient hospital units in two large Canadian cities to understand what leads to on-premise use. PWUD were asked to describe their drug use during hospital stays, staff interactions and experiences leaving before discharge. HCP were asked to describe their attitudes and experiences providing care to PWUD and related hospital policies. Interviews were audio-recorded, transcribed and analyzed inductively.

### Results (of evaluation)

24 PWUD and 26 HCP participated. PWUD used substances in hospital to manage physical and psychological withdrawal and pain. Many HCP described ignoring substance use to avoid confrontation. PWUD described how they conceal use and respond to monitoring following drug use detection. HCP concerns about overdose or breaches in trust led to terminating hospital prescriptions (i.e. opioids) and discharge. Harm reduction approaches were used by some HCP, and no institutional policies existed to guide HCP in managing on-premise use.

### Conclusions/Lessons learned

Optimizing length of stay for all PWUD is crucial for ensuring effective and high-quality care, especially for those with complex health needs. These findings highlight the lack of consistency in approach to on-premise use and indicates institutional policies and further

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### *Is the hospital an appropriate setting for behavioural change interventions?*

FAGGIANO Fabrizio

### Background/Problem/Objective

Health systems are experiencing a dramatic change, with hospitals limiting their role in acute care, and an increasing role of primary prevention. For this, they are increasingly considered an exceptional setting for prevention activities. The objective of this presentation is to review scientific literature to identify effective prevention interventions to be conducted in the hospital setting.

### Methods/Intervention

A systematic review has been conducted using mainly Medline. The inclusion criteria are the following: RCTs





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or Systematic reviews evaluating the effectiveness of interventions for smoking cessation, overweight treatment, and for health promotion especially in the field of diet and physical activity; targeting hospital patients, parents and hospital staff. The results of the meta-analysis were analysed in order to assess the possibility to transport them in the hospital setting.

### Results (of evaluation)

3309, 1587, 2140 and 761 titles were retrieved for a large search on the main literature databases, evaluating interventions on physical activity, nutrition, obesity and smoking cessation respectively. 10, 7, 17 and 121 were included, respectively, and meta-analysis showed that there are some effective interventions to be transported to the hospital setting.

### Conclusions/Lessons learned

Hospital can be considered an appropriate setting to conduct health promotion interventions aimed at behavioral change. There are effective interventions that can be transported in the hospital setting to target the population of patients, their parents and the hospital staff. The hospital context appears to increase the motivation for a behavioural change. The relationship between effectiveness of intervention and population coverage is a critical issue in considering these interventions.

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### *Strategies to Prevent Type 2 Diabetes for the people with Pre-Diabetes in Health Promoting Hospitals (HPH) in Korea: 12-month Result of Intervention Program*

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### Background/Problem/Objective

As the focus of health policy changes from disease treatment to prevention, it is necessary for the HPH to develop strategies targeting risk groups to prevent diseases. Particularly, type 2 diabetes mellitus (T2DM) is caused by genetic, behavioral, and environmental risk factors. It is important for pre-diabetes groups to prevent T2DM through elimination of controllable risk factors. Thus this study was designed to see the effects of lifestyle intervention or periodical blood glucose/HbA1c test on the prevention of T2DM for prediabetes groups.

### Methods/Intervention

This study was performed for high-risk individuals (aged 30-70) with prediabetes at the health promotion centers of KAHP in Korea. They were randomly assigned to intervention group 1 (IG1), intervention group 2 (IG2) and control group (CG) and the intervention performed for 12-months. IG1 was provided with lifestyle intervention and glucose/HbA1c tests every 3-months. For IG2, only glucose/HbA1c tests were conducted. Health examinations were conducted for all groups after 12-months. IG1 set intervention goals at baseline and was evaluated for achievement after 12-months.

### Results (of evaluation)

After 12-month intervention, total-cholesterol, LDL-cholesterol and FBS levels have been significantly decreased in IG1 and IG2 ( $p < 0.001$ ). However, there was no significant difference between two groups on reducing FBS. Among 5 intervention goals of IG1, reducing intake of lipid and increasing dietary fiber were highly achieved but the achievements in reducing intake of sugar, practicing moderate physical activities and losing weight were low. Incidence of T2DM in IG1 (5.7%) and IG2 (4.3%) were lower than in CG (6.5%) but there were no significant difference.

### Conclusions/Lessons learned

Regular lifestyle intervention and blood glucose/HbA1c test were effective on reducing FBS in high-risk individuals with pre-diabetes. More intensive and continuous intervention for increasing moderate physical activities was thought to be needed in IG1. It is necessary to be followed for three years, to determine effects of intervention on T2DM prevention.

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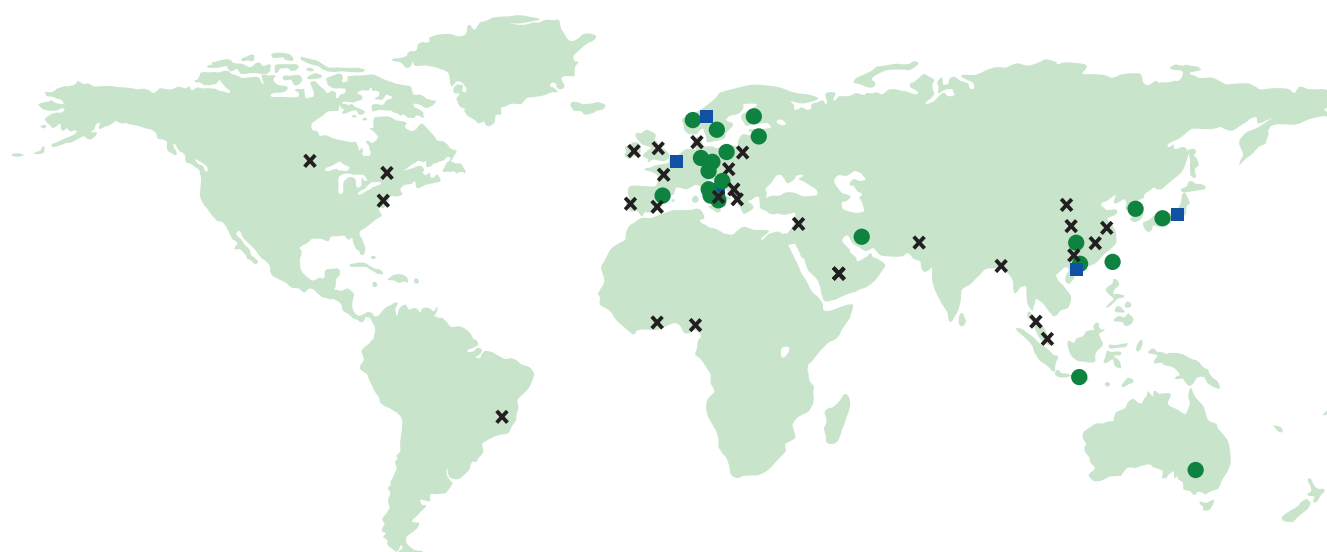
## News from the International HPH Network

# The international HPH Network welcomes the new members of 2018

The international Network of Health Promoting Hospitals and Health Services welcomes the 39 new hospital, health service and affiliated members who signed up to become members during 2018.

Of the new members, 32 have joined existing National/Regional Networks; Japan, Italy, Hong Kong, Catalonia, Iran and Norway. The remaining 7 are new individual members in countries and regions without existing networks; Three new members from China, and one from Pakistan, Quebec, Ireland and France respectively. A special mention goes to the Japanese National HPH Network, which is experiencing a high members growth. With their 20 new members, the Japanese HPH Network now consist of 98 members altogether.

The international HPH Network welcomes all our new members. By the end of 2018, the international HPH Network consist of 597 members. Below you can see how the N/R Networks and members are represented world-wide.



● = Country / Region with HPH Network(s)

✕ = Country / Region with individual Hospital or Health Service HPH Member(s)

■ = Country / Region with Affiliated Member(s)

### Join the international HPH Network

If your hospital, health service or organisation is interested in joining the international HPH Network, please go to the HPH website and read more about what the network can do for your organisation and how health promotion can benefit your patients, staff and community.

For more information visit [www.hphpnet.org](http://www.hphpnet.org)

### Update of the HPH website

The HPH website has undergone an update to a new platform, which offers better visuals and better accessibility.

On the website you can learn about HPH members, news from HPH Task Forces and Working Groups, access HPH documents, such as standards, guides, and stay updated on news from the network.



## News from the International HPH Network

# New HPH Governance Board

At the 24<sup>th</sup> meeting of the HPH General Assembly in Bologna on June 6, 2018 a new Governance Board was elected for the period 2018-2020. The elected board consist of the following seven members:

- Chair Margareta Kristenson, Swedish HPH network
- Vice-chair Sally Fawkes, Australian HPH Network
- Cristina Iniesta Blasco, Catalan HPH Network
- Kjersti Fløtten, Norwegian HPH Network
- Alan Siu, Hong Kong HPH Network
- Ying-Wei Wang, Taiwanese HPH Network
- Antonio Chiarenza, Emilia Romagna HPH Network

The board has already had a number of meetings during the second half of 2018 and they look forward to continuing the work for the rest of the period.

# 27<sup>th</sup> international HPH Conference takes place in Warsaw on May 29-31, 2019

The 27<sup>th</sup> international Conference on Health Promoting Hospitals and Health Services takes place in Warsaw Poland under the title:

### ***Balancing High Tech and High Touch in Health Care: Challenges and Chances of Digitalization for Dialogue***

The conference intends to address if high tech and high touch are competing or even contradictory issues or reconcilable principles for the future of health care and health promotion.

Opportunities and challenges arising from technological development for health care and life style interventions are emerging rapidly. But how does this development impact high touch interaction and communication in health care and health promotion? The conference will deal not only with the drivers coming from technology, but also with trends and changes in health care systems and public health itself.

The conference takes place at Warsaw Marriot Hotel



Credits: Silviannm

Visit the HPH Conference website for more information: [www.hphconferences.org/warsaw2019](http://www.hphconferences.org/warsaw2019)

## HPH 2017-18 Progress Report

The collection of the HPH Progress Reports for the period 2017-18 has begun. The Progress Report supports the exchange of knowledge and experience, and the report is an important tool for the HPH Network to assess the work in the HPH National/Regional Networks, HPH Task Forces and Working Groups. The Progress Report allows the HPH Network to adjust and identify key priorities for actions and improvement.

The information collected will be compiled into a report, which will then be presented at the General Assembly in Warsaw and made accessible publicly online at [www.hphnet.org](http://www.hphnet.org)