

UPPSALA HEALTH SUMMIT

# Pathways to Lifelong Mental Wellbeing October 2021



# TABLE OF CONTENTS

Summit programme .....	03
Executive Summary .....	04
Briefs .....	08
Implementation of The Swedish Method Physical Activity on Prescription .....	08
Psychological Flexibility, Mental Health, COVID-19 and Beyond.....	12
Public Mental Health: Discussions on Semantic and Taxonomic Problems Regarding Mental Health and Illness, and the Application and Implications of New Techniques.....	14
Hormones and Mood .....	18
Addressing Peripartum Depression .....	22
Public Mental Health Promotion as an Integral Part of Clinical and Community Care Programme.....	26
How to Improve Access to Evidence-Based Psychological Interventions .....	30
Animal-Assisted Interventions - How They Can Improve Wellbeing Among Children Facing Mental Health Difficulties at School.....	34

# SUMMIT PROGRAMME

Recordings from the sessions can be accessed via our website:  
<https://www.uppsalahealthsummit.se/our-summits/summit-on-mental-wellbeing-2021>

## MONDAY, OCTOBER 18<sup>TH</sup> CONFERENCE OPENING

### Key note address

by Dr Ledia Lazeri, WHO Europe Regional Advisor, Mental Health

### Key note address

by Benjamin Perks, Head of Campaigns and Advocacy at UNICEF, New York

### Plenary Session 2: Towards a new understanding of mental health and wellbeing

*“Can we get out of the neurotic treadmill?”*

**Dr Christian Rück**, Professor, Department of Clinical Neuroscience, Karolinska Institutet

*“Acting Early – From Developmental Science to Scalable Prevention”*

**Dr Vikram Patel**, The Pershing Square Professor of Global Health and Wellcome Trust Principal Research Fellow, Department of Global Health and Social Medicine, Harvard Medical School

*“Towards positive mental health and wellbeing: Lessons from Friendship Bench Zimbabwe”*

**Dr Dixon Chibanda**, Associate Professor, Centre for Global Mental Health, London School of Hygiene and Tropical Medicine, UK.

## TUESDAY, OCTOBER 19<sup>TH</sup>

### Plenary Session 3: Innovative strategies for closing the treatment gap

*“Rethinking the role of technology in improving access and quality in mental healthcare”*

**Dr Andy Blackwell**, Chief Scientific Officer, IESO Digital Health, UK

*“Reimagining Support for Low-Intensity CBT: The Promise of AI”*

**Dr Paul Farrand**, Professor, University of Exeter, UK.

*“Psychological internet treatments work and can be exported to other cultures and languages”*

**Dr Gerhard Andersson**, Professor, Linköping University, Sweden.

*“Benefits of Human-Animal Interactions for Mental Health and Wellbeing”*

**Dr Andrea M. Beetz**, Professor, IU International University of Applied Sciences, Germany.

Workshops in Parallel; separate programme

## WEDNESDAY, OCTOBER 20<sup>TH</sup>

### Plenary Session 4: Social Media and Adolescent Mental Health

*“Digital pragmatism: How can we use social media and digital devices to support adolescent mental health?”*

**Dr Nick Allen**, Professor of Clinical Psychology at the University of Oregon, USA.

*“Adolescents in the digital age: technology use, wellbeing and parenting”*

**Dr Jacqueline Nesi**, Assistant Professor in the Department of Psychiatry and Human Behavior, Brown University, Rhode Island, USA.

*“Social Media Use and Adolescent Mental Health”*

**Dr Madeleine George**, Public Health Research Analyst at RTI International, Durham North Carolina, USA.

Workshops in parallel; see separate programme

## THURSDAY, OCTOBER 21<sup>TH</sup> CONFERENCE CLOSING

### Plenary Session 5: Pathways to lifelong mental wellbeing

*“A sleep-deprived society: A brief wake-up call!”*

**Dr Christian Benedict**, Associate Professor in Neuroscience, Uppsala University, Sweden,

*“Healthy green space and inclusive landscapes: the salutogenic environment”*

**Dr Catharine Ward Thompson**, Professor of Landscape Architecture, University of Edinburgh, UK.

*“Isn't That Tweet: ACT in 15 Minutes”*

**Dr Steven C. Hayes**, Nevada Foundation Professor at the University of Nevada, Reno NV, Founder of Acceptance and Commitment Therapy (ACT), USA.

### Report back from workshops

*Closing Remarks*

**Dr. Ing-Marie Wieselgren**, MD, PhD Psychiatry, Project Manager for Joint Action for Mental Health Sweden, Swedish Association of Local Authorities and Regions.

## Pathways to Lifelong Mental Wellbeing October 2021

### **Promoting Global Mental Health and Wellbeing: Everyone's Business!**

Good mental health is an integral part of a healthy life. Nonetheless, increasing mental ill health is one of the most acute public health challenges in Sweden and globally. Every third person suffers from a mental illness at least once in their lifetime, and the probability of women being diagnosed with anxiety or depression is twice as high as that for men. Young people are at particularly high risk, and since the mid-1980s the proportion of Swedish young people with symptoms of mental illness has quadrupled. Shockingly, in 2020 in Sweden, more than seven times as many people died by suicide than in traffic accidents. There is a substantial treatment gap, with an uptake of 7-28% for common mental disorders. Clearly, there is an acute need to tackle the ongoing global mental health crisis.

Mental health is a complex multidimensional construct that is shaped by and in turn shapes our biological, psychological and social functioning throughout life. Promoting mental health is challenging even at the best of times. During the COVID-19 pandemic, this challenge has become more apparent due to the intensified need to effectively address the increased levels of mental ill health across the globe.

It is well established that protection and improvement of public mental health and wellbeing require multi-sectoral action across all societal levels, but we also need to better understand the available approaches and how they can be successfully implemented so as to benefit more people. In other words, we do not need to “reinvent the wheel”, but instead to ask how available prevention and intervention methods can be efficiently applied and adapted across different societies and contexts to promote mental health and wellbeing.

In an attempt to find some concrete answers to this question, 800 delegates from 76 different countries – from academia, healthcare, industry, politics and civil society – met online for the Uppsala Health Summit, in autumn 2021. The summit included plenary sessions and workshops. The aim of the meeting was to freely discuss innovative ways to prevent mental ill health and to intervene to improve global mental health and wellbeing.

This post-conference report summarizes conclusions from the 8 workshops at Uppsala Health Summit 2021.

- Implementation of the Swedish method Physical Activity on Prescription
- Psychological Flexibility, Mental Health, COVID-19 and Beyond
- Public Mental Health: Semantic and Taxonomic problems regarding mental health and application and implication of new techniques
- Hormones and Mood
- Addressing Peripartum Depression
- Public mental health promotion as an integral part of clinical and community care programmes
- How to improve access to evidence-based psychological interventions
- Animal-Assisted Interventions –how they can improve wellbeing among children faced with mental health difficulties at school

As evident in the titles, the workshops focused on disparate aspects of mental health, but some common themes emerged from the discussions – themes considered generally important in promoting global mental wellbeing. First, it was suggested that a perspective change on mental health is key to fighting the stigma associated with mental ill health and mental disorders. Naturally, this can be accomplished by promoting a better public understanding of what mental health really is. Ideally, all people across all societal levels and countries should clearly understand the multidimensional nature of mental health, that it ranges from very good mental health to mental disorders, and that everyone, even healthy individuals, commonly experience mental distress (e.g., symptoms of depression and anxiety) as a natural part of life. It was suggested that, in some ways, the COVID-19 pandemic has helped people realize this fact. This was also emphasized by WHO's Europe regional advisor on mental health Dr. Ledia Lazeri, in her opening keynote presentation in which she stated that: “The pandemic has made it clear that mental ill health can affect everyone”.

As such, somewhat ironically, the pandemic may have had some beneficial effects on mental health in the form of reducing stigma by making people, all across the world, more aware that mental health is everyone's business. Having said this, increased public education on the mental health construct, preferably from an early age as part of the school curriculum, was suggested as a concrete measure for mental health prevention and resilience building. Spreading the word about mental ill health is particularly important in developing countries, where the importance of mental health is less appreciated and prioritized.

One obvious question discussed in many of the workshops was potential concrete and scalable ways of reducing the burden and incidence of global mental health problems, including what the most promising targets are in reaching these goals? In his plenary session, "Acting early: from developmental science to scalable intervention", Dr. Vikram Patel emphasized the importance of primary intervention or "stopping mental health problems before they start". This perspective is based on the fact that adversities in early life are profoundly associated with poor mental and physical health across the life course, regardless of culture and context. Some concrete evidence-based methods for early intervention programmes that target adverse early environments/ events are: parenting interventions, teaching life skills in schools including emotion regulation and problem-solving, as well as providing access to low-intensity mental health care within educational institutions.

One important aspect of promoting mental health in schools is to provide a less stressful environment. One of the workshops discussed animal-assisted prevention in schools to support mental health, particularly for children with neurodevelopmental disorders. This method has proven to be effective both on its own and as a complement to other methods, such as neurodidactics, across countries and contexts. For this reason, it could contribute to reducing the societal costs associated with early school dropout due to mental ill health in children.

A given topic for discussion at the Summit was how evidence-based psychological treatments can be made more readily available through the use of innovative methods. Here "The Improving Access to Psychological Treatment" (IAPT) programme was suggested to be a concrete and successful method. It has led to a new psychological approach based on low-intensity cognitive behavioural therapy (LICBT) delivered through a stepped-care model, including various self-help techniques delivered through the internet and smartphone apps. It was underlined that government-level commitment and investment are required to make broader use, across countries and contexts, of this good example of re-organizing service delivery models as well as to develop new psychological approaches.

As previously mentioned, the pandemic has certainly raised awareness of the increasing mental health problems around the globe, as it naturally increased some of the risk factors for mental ill health, such as isolation, uncertainty and threats to our daily lives. Interestingly however, as was discussed in one of the workshops, research has shown that psychological resilience factors, such as psychological flexibility, can protect against mental health problems in the context of COVID-19. Such findings are of practical importance as they point to malleable public health targets during the ongoing pandemic of COVID-19 and in the event of similar widespread health threats in the future.

The pandemic situation has highlighted the role of a well-functioning context in our mental health and wellbeing and, thus, the importance of community-based support. A concrete inspirational and successful example of such community care is the Friendship Bench approach from Zimbabwe. Here, grandmothers are trained to deliver CBT-based therapy on wooden benches that are placed around the community. This method has proven to be very effective in promoting mental health in low-resource settings and is an innovative way of delivering community-based mental health services at a low cost as well as of building resilience and community support.

Further, physical activity is known to have beneficial effects on our mental health. The Swedish method Physical Activity on Prescription (PAP-S) was discussed in one workshop. It is an evidence-based method of creating and maintaining mental health that should be implemented more widely across countries and cultures, perhaps through a common digital platform. It is also a good example of a highly accessible self-help method that all of us can implement in our lives, as we see fit, to improve our mental health and wellbeing.

Finally, the increased vulnerability to mental ill health and mental disorders among women during their reproductive years was discussed in two of the workshops. There is a clear need for increased awareness, both among the general public and the women themselves, of the life challenges associated with the menstrual cycle, pregnancy and postpartum, and the menopausal transition, which are linked to increased levels of depressive disorders in large parts of the female population. Clearly, more research is needed in this area to develop prevention, screening and treatment methods that are specific to women. Joint efforts between academia, healthcare providers, and policymakers are required to promote women's wellbeing.

In sum, The Uppsala Health Summit 2021 resulted in several innovative ideas and recommendations for how global mental health and wellbeing can be protected and promoted across societal levels and cultures. The summit constitutes a small but important step towards increased awareness of the fact that joint action, across societal levels and countries, is key to improving global mental health and wellbeing. We are all part of the problem as well as the solution!

In what follows, the conclusions and recommendations from each of the eight workshops are presented in summaries authored by workshop leaders.

**Professor Karin Brocki**  
Department of Psychology, Uppsala University  
Chair of the Uppsala Health Summit Programme Committee



---

Sponsors



---

Partners





## Pathways to Lifelong Mental Wellbeing October 2021

### Implementation of the Swedish Method Physical Activity on Prescription

Lena Kallings, Amanda Lönn, Peder Hoffmann, Jane Salier Eriksson

#### Background

In Sweden, Physical Activity on Prescription (PAP-S, Swedish FaR) is an evidence-based method that has been used in the healthcare sector to promote physical activity for the prevention and treatment of diseases. PAP-S has been declared as best practice by the World Health Organization (WHO) as well as the European Commission, and it has been determined that PAP-S is to be implemented in other EU member states. The person-centred approach of PAP-S is unique and consists of five core components (see Fig. 1):

- Individualized counselling takes all of the patient's needs into consideration.
- An individualized written prescription includes recommended physical activity and a follow-up plan.
- Individualized follow-up allows for adjustments to be made to the prescription and provides support to improve motivation when necessary.
- The evidence-based handbook Physical Activity in the Prevention and Treatment of Disease – FYSS – summarizes the effects of physical activity and gives physical activity recommendations for various diseases. It is an essential tool for healthcare professionals when prescribing PAP-S.
- A supportive environment and community-based network help the individual to adhere to the prescribed activity.

#### Approach

Given that the PAP-S method still needs to be implemented more broadly, both in Sweden and in other countries, the main focus of the workshop was on how to further implement PAP-S.

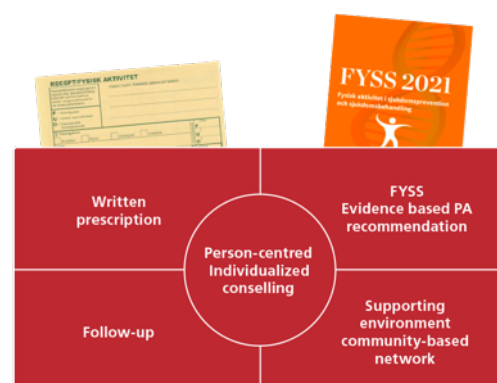
Lena Kallings opened the workshop by posing five questions to the 20 delegates from nine countries: Sweden, Belgium, Lithuania, Spain, Sri Lanka, Cameroon, Kenya, South Africa and Canada. The questions concerned their previous experience of PAP.

73% had heard of PAP, while 60% had some experience working with it. 75% answered that their countries had experience of the method. The majority worked in public health or healthcare, while there was an even distribution of participants working at the national, regional and local levels in their countries.

Lena Kallings presented the PAP method and its 5 core components as well as what is unique to the evidence-based Swedish method (PAP-S) compared to similar methods. Nine countries in the EU now implement Swedish PAP.

In Jill Taube's lecture, "Can PA/PAP be used to create and maintain mental health", she stated that there is enough evidence to show that low fitness and lack of PA increase the risk of depression. Physical activity can be used in the prevention and treatment of mental diseases, and as secondary prevention for somatic comorbidity in psychiatry. There is increasing evidence that PAP will help people with mental illness and psychiatric diseases. Consequently, PAP should be implemented more often within psychiatry.

Figure 1. The five core components of the Swedish Physical Activity on Prescription model (adopted from Kallings 2008)





Stefan Lundqvist talked about implementation of PAP-S in Swedish healthcare and the results from his doctoral thesis. To succeed in implementing PAP treatment, it needs to be prioritized by management, with clear guidelines and routines. As the quality of the PAP prescriber is important to the patient, we need educated, skilled co-workers with ear-marked time to offer qualitative PAP treatments to all physically inactive patients.

He also emphasized the importance of using all five of the cornerstones of PAP – individual counselling, written prescription, evidence-based PA, follow-up and supporting environment – to make implementation work.

## Outcome of the workshop discussions

### *How can implementation of PAP-S in Sweden be improved?*

Most users of PAP and people in key positions consider the method to be good, but they also feel it is complex and, according to the delegates, too little used. The Swedish healthcare system is overloaded, so channeling physically inactive patients into more appropriate treatment would be beneficial. Therapists working with PAP appreciate the guidelines given and the networks that exist in Sweden, and the question of how to improve these was discussed.

One could improve implementation of PAP by more often proposing it as a first-line treatment instead of prescribing it at a later stage in a patient's treatment. Despite the evidence, it is often not used as a first tool of treatment. Jill Taube added that, within psychiatry, the understanding of the benefits of PAP is even worse and prescriptions are seldom written. She suggested a "pre-PAP" where a patient and prescriber are given support concerning behavioural changes for PA before actually being given a prescription. A dialogue with politicians is another essential way of increasing the use of PAP. Developing a supportive environment to make it easy and pleasant to be physically active outside was also discussed as a way to promote adherence. Examples of such approaches were using nature or animals to increase PA.

Multidisciplinary teams have been shown to be successful in several regions. When PAP has been shown to succeed, there has been a cohesive chain from the decisionmakers via prescribers of different professions to the actual activity organizers.

Politicians suggest subsidizing costs for the physical activities prescribed by PAP, but prescribers believe that subsidies to ensure the good quality of the entire PAP process are more important: the prescription, the

competence of the physical activity arrangers, a supportive environment for physical activity, the follow-up.

### *How can PAP-S be implemented and adapted to different contexts in different countries?*

The concept of PAP is still unknown in many countries, and it was agreed that more education is needed to show in what context PAP can be implemented, how to build on previous experience, what the benefits of PAP are in other countries, what the benefits would be in the new country of implementation, and what or who to target first.

Depending on how the healthcare systems in different countries work and how their health policies are formulated, ease of implementation of PAP will differ across countries. This is an enormous challenge. Stefan Lundqvist emphasized the importance of using the five core elements of PAP in their entirety when implementing PAP. His opinion is that PAP will not work if this basis is not used to build on. Starting from the core elements, adaptations can then be made to accommodate the different cultures in different countries.

At present, evidence for the efficacy of PAP applies only to adults, so there is a need to build evidence for how or whether it works on children.

The question of having a digital platform arose. A PhD student from Canada, who was not acquainted with PAP, had joined the workshop as her thesis concerns interventions on digital platforms. She wondered whether one could get PAP to benefit more people by using digital platforms. Contacting patients digitally during the corona pandemic proved viable, and although both patients and prescribers prefer meeting in real life, a hybrid version of contact is possible. Apparently, there is work in progress in this area, and several initiatives have been made from different angles, e.g., designing an online database to monitor a patient's PA. A well-structured platform is a prerequisite. This is possibly an area where joined forces are needed and where PAP-S could invest time and energy to develop a common digital platform or find other ways of delivering PAP.

According to several participants, the cost effectiveness of PAP must be established before some countries will implement PAP. There is no direct evidence of the cost effectiveness of PAP-S compared to a control group, but rather indirect evidence, e.g., it has been shown that if you can promote physical activity with a rather simple method, then it is cost effective. The Organization for Economic Co-operation and Development (OECD) has selected Swedish PAP as a method of "Best Practice" and is conducting a cost effectiveness study on it.





## Summary of Recommendations

- We must make the PAP method easier to prescribe and implement through better support and structure.
- It is important to include all five cornerstones of PAP when transferring to another country. PAP will not work if the whole concept is not in place. Adaptations can then be made to mirror the reality of how healthcare works in different countries, i.e., what to target first, education of prescribers and a strong belief in PAP.
- Use multidisciplinary teams to support the individual.
- Economic incitement? Pros and cons.
- Work with the environment and animals to increase patients' PAP adherence.
- Cost effectiveness needs to be addressed with more research.
- Find digital platforms to help patients.
- Evidence that PAP-S can be used to create and maintain mental health.

## Concluding "Call to action"

Start an international network for dissemination and implementation of PAP-S. A decision has been made by the Swedish School of Sport and Health Sciences (GIH), Stockholm, Sweden to initiate the leadership in starting this network.

## Suggested reading

Kallings L. 2008. Physical Activity on Prescription – Studies on physical activity level, adherence and cardiovascular risk factors [Ph.D. Thesis]. *Karolinska Institutet*.

Kallings LV 2016. The Swedish approach on physical activity on prescription. Supplement 2 ("Implementation of physical activity in health care – facilitators and barriers"). Supplement by the HPH Task Force on Health Enhancing Physical Activity in Hospitals and Health Services). *Clinical Health Promotion*, 6, 31-3.

Lundqvist, S. 2020. Physical activity on prescription in primary care, impact on physical activity level, metabolic health and health-related quality of life, and its cost effectiveness – a short and long-term perspective. (PhD thesis). *University of Gothenburg*.

Onerup, R., Arvidsson, D., Blomqvist, Å., et al. 2019. Physical activity on prescription in accordance with the Swedish model increases physical activity: a systematic review. *Br J Sports Med*, 53, 383-388.

Professional Associations for Physical Activity (Sweden) 2021. Physical Activity in the Prevention and Treatment of Disease, FYSS 2021 (in Swedish: Fysisk aktivitet i sjukdomsprevention och sjukdomsbehandling, FYSS, 2021), *Stockholm: Läkartidningens förlag AB; 2021 www.fyss.se*

## Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit "Pathways to Lifelong Mental Wellbeing." Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors: Lena Kallings\*, Amanda Lönn, Peder Hofmann, Jane Salier Eriksson: All from the Swedish School of Sport and Health Sciences (GIH), Stockholm, Sweden.

\*Corresponding author: [lena.kallings@gih.se](mailto:lena.kallings@gih.se)



## Sponsors



## Partners



## Pathways to Lifelong Mental Wellbeing October 2021

### Psychological Flexibility, Mental Health, COVID-19 and Beyond

Karin Brocki, Lance McCracken,  
Monica Buhrman, Amani Lavefjord, Felicia Sundström

#### Background

The impacts of the COVID-19 pandemic on global mental health have been widely assessed and reported during the past two years, documenting the considerable prevalence of suffering and need. Protecting and improving mental health is challenging, even during the best of times. During the pandemic, the need to effectively meet these challenges has been made even more dramatically apparent. Examples here include the rise in rates of common mental health conditions such as symptoms of depression, anxiety and sleeping difficulties. Worth highlighting is that those whose mental health is most affected include people with a history of mental health difficulties or others in vulnerable circumstances, such as those with chronic physical health conditions. Other challenges lie in the lingering or chronic health effects following infection with the virus known as "long COVID." Results such as these call for increased knowledge, better models of health and wellbeing, and practical methods to mitigate the effects of such events. Part of the knowledge needed involves understanding the psychological capacities that afford people resilience against these impacts and that can serve as malleable public health targets during the ongoing pandemic and in similar contexts in the future.

#### The Workshop – approach and summary from discussions

The workshop focused on the following questions:

- i) What have we learned about mental health problems during the pandemic?
- ii) Are there psychological resilience factors in the pandemic context?
- iii) Are there currently available psychological treatment methods that could be effectively applied in the context of the pandemic, and what are the challenges that lie ahead in doing so?
- iv) How can we disseminate relevant knowledge, develop scalable approaches to world mental health, and effectively implement these?

The workshop had some 23 registered international participants, including representatives of a pharmaceutical company, a non-profitable association for mental health, a private healthcare company, and a non-profit developer of digital tools for mental health, researchers and university students. The workshop included an inspirational talk, a presentation of relevant recent empirical data from studies conducted at Uppsala University, and two break-out sessions with different themes.

Professor Lance McCracken initiated the workshop with an inspirational talk about Psychological Flexibility (PF) as a psychological resilience factor against mental health problems, the empirical evidence for this, and the potential of PF as a malleable public health target during the pandemic and when facing similar health threats in the future. The talk also included some experience-based psychological exercises focused on how we can improve PF. The essence of these exercises was to practice acting with openness, awareness, and perspective.

Professor Karin Brocki then presented published data from a survey conducted in the early phase of the pandemic in Sweden on the levels of mental health (i.e., symptoms of depression, anxiety and sleeping difficulties) and how individual differences in PF may function as a resilience factor that protects against mental health problems in the context of the pandemic.

In the first break-out session, the participants were asked to discuss what they had learned from their experiences in relation to mental health during the pandemic in their respective contexts and countries. The topic for the second break-out session discussion was how we can disseminate relevant knowledge and implement existing prevention and intervention methods for mental health.

#### Recommendations

During the workshop we had several interesting discussions. Several attendees mentioned, as did presenters, that young people seem to be one of the most affected groups regarding mental health effects of the pandemic.



© Unsplash / Scott Webb

Being young, being a healthcare worker, and being anyone who experiences feelings of isolation are universal risk factors. Regardless of country or continent, people in these circumstances seem to have been in a vulnerable position during, and in the aftermaths of, the pandemic.

We gained exciting insights into how mobile applications in combination with collaborations with schools can provide a viable alternative for promoting PF in young people. This is a potential solution that appears to merit further study and broader application.

These topics can be seen from a wider perspective. We can also see the clear need for widely applicable solutions for promoting world health and wellbeing that can be scaled up and made accessible regardless of local resources. There are resources that some of us take for granted but that are not consistently available in other parts of the world, such as a stable internet connection.

In many countries, mental health and human behaviour are not always appreciated or prioritized. There is much work to be done to build awareness of mental health as an important issue and of the potential of behavioural science. It is perhaps not sufficiently understood or appreciated that overall health depends on mental health, as does a nation's economic health, for example.

In some ways, the question of how we should promote the value of behavioural science is problem number one, and it must be resolved before behavioural science can better address mental health and other problems. To summarize, we have learned that the world is fragile in many respects. It is important to take an account of how people have been affected. We will want to know how this came about, what lessons can be learned, how we should spread the word, and what measures should be taken to make things better. Whatever solutions we develop, they will not be one-size-fits-all, as they will need to reflect the diversity of people and circumstances that need them.

Even if we can identify some global trends in how the pandemic has affected us, we can use this knowledge to adopt an international, and contextual, perspective that will enable us to successfully implement and disseminate existing, and future, intervention and prevention methods.

## Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors and workshop organisers: Karin Brocki\*, Uppsala University; Lance McCracken, Uppsala University; Monica Buhrman, Uppsala University. Rapporteurs: Amani Lavefjord, Uppsala University; Felicia Sundström, Uppsala University.

\*Corresponding author: [karin.brocki@psyk.uu.se](mailto:karin.brocki@psyk.uu.se)



## Sponsors



## Partners



## Pathways to Lifelong Mental Wellbeing October 2021

### Public Mental Health: Discussions on Semantic and Taxonomic Problems Regarding Mental Health and Illness, and the Application and Implications of New Techniques

Charlotte Asker-Hagelberg, Simon Cervenka, Niklas Långström

#### Background

According to the World Health Organization's (WHO) Constitution, health is a state of "complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." This suggests that the concept of mental health is also broader than simply the absence of mental disorder or disability. Diagnosed psychiatric disorders, on the other hand, cause substantial human suffering with important implications at several levels, even beyond the affected individual: the family, the healthcare system and society at large.

To support policy decisions and development of effective preventive mental health measures, there is a need for harmonization of terminologies. Therefore, discussions on the definitions of mental wellbeing and existential health, versus mental ill health and diagnosable psychiatric conditions, seem warranted. Ideally, this should be based on the identification and proper use of representative and robust data to monitor public mental health. Making comparisons across nations using similar indicators demands rigour at collection and the presumption that sampling, attrition, adjustments and management of data are quite similar.

Moreover, digital techniques are likely to affect this field. Obviously, local, regional and national determinants of mental health are influenced by the political climate, social infrastructure and cultural factors.

The question is: Is it possible to identify generic and generalizable common domains and denominators of mental health?

#### Approach of the Workshop

##### Workshop design and discussions

The workshop topic was distributed to four discussion groups, which were to take on slightly different tasks and

topics. Two groups discussed taxonomy and definitions, two other groups addressed the relevance of emerging novel techniques and their impact on the field of mental health. Participants were from Europe, Africa and South America.

#### Highlights from the discussions

**What is mental health and how should we measure it?**

- Monitoring mental health at the population level is important for early intervention and prevention. It is a challenging task, as it is highly contextual and depends on socioeconomic and cultural factors. The aim of data collection should determine the choice of data and methods to be used.
- A global public health initiative should include all sectors of society and consider social justice and setting of standards. The question is, however, will such monitoring give the intended positive effects?

The general notion was that definitions at the population level are important for early identification of prevention targets and areas. The aim of data collection should determine the choice of data and methods to be used. While data within disorder domains are easier to follow with existing classification systems and adequate national registers, concepts like "happiness", used for example in Ghana, are more difficult to address. It was suggested that defining mental wellbeing is highly contextual and cultural, as is determining what defines a good life in different societies. Definitions of mental health should ideally include all groups in a given society/nation. How data are registered as well as their population coverage is crucial for data accuracy and trust.

One of the groups discussed whether it was useful or beneficial to measure mental health. At a philosophical level, the question was raised of whether setting





© Mostphotos

measurable standards per se can create mental ill-health if those standards cannot be reached. What would be the consequences of measuring?

Still, we will need to measure some domains to prevent mental health problems and marginalization or exclusion of individuals and groups. Assessment of determinants related to mental health like social conditions may play a role, but it was questioned whether this is useful for assessing “mental health”. One conclusion was that global public health initiatives must include all sectors of society and connect to social justice and setting of standards.

Another group argued that the nature of data is important. “What you ask is what you get”. If you obtain a lot of data and add living conditions, you may add to the diagnostic levels for “suffering”. We need to consider diagnoses by combining biological aspects and context. For instance, we need to identify who is suffering and who is responsible for the suffering: the individual, his/her family or society? And can we then build prevention systems into society? In Kenya, attempts are being made to measure different variables in children and parents alike, and then to use digital data to come up with algorithms for intervention thresholds.

### Definitions of mental health, mental ill health and illness

- The relationships between the terms mental health, mental well-being and mental ill health need further exploration. One suggestion is to use and build on the term mental capital instead of mental health.
- New areas within the domain of mental ill health should be accompanied by ethical reflection on prioritization by decisionmakers. The identification and treatment of severely debilitating psychiatric conditions should be included in discussions on horizontal prioritizations.

The WHO considers “mental health” to be independent of “mental problems” and “mental disorders”. Thoughts that were put forward included promotion of a positive

notion like “mental health”. However, getting a diagnosis may support the person in finding help to adjust his/her functioning. All people, even healthy individuals, sometimes have mental problems. Thus, “mental health” as an entity is interrelated with “mental problems” and “mental disorders”.

Some participants suggested it might be time for a perspective change: Can we promote mental health? Use of a defined term like “mental capital” may add value. Mental capital could include, e.g., how many people have social support (friends, family) or positive leisure time. There was disagreement concerning whether objective measures of mental health are at all possible, and what they might be. Concerning Ghana, one reflection was that monitoring mental health will likely help minimize the societal stigma.

### What distinguishes mental disorder outside criteria in classification systems like ICD 10, 11 and DSM-5?

- Within the disease domains and classification systems, incorrect use of terms and semantics may cause stigma, imprecision, a sense of false security and erroneous treatment choices.
- There is a need for basic knowledge of taxonomy among professionals. However, variations in degree of granularity of criteria may be a problem depending on the context and understanding of their use.
- Transdiagnostic dimensions may be more fruitful targets for treatment, as suggested by the dimensional Hierarchical Taxonomy of Psychopathology (HiTOP) and the biology-based Research Domain Criteria (RDoC).
- A concluding remark was that terminology should ideally reduce stigma regarding mental health and ill health, but without minimizing the extensive, continued suffering or impairment of individuals with severe mental disorders.

It was a general view that professionals need at least basic knowledge of both the more detailed and granular DSM-5 developed for specialist psychiatry settings and ICD, which is intended to function in most clinical settings world-wide. Moreover, continued harmonization of content is needed.

The group reflected on the current classification systems and agreed on the fact that “disease activity” (degree of functional impairment) is well described in WHODAS 2.0.

There is an important conflict in the level of detail or granularity of the various diagnostic systems. Higher levels of detail may improve diagnostic reliability and sensitivity for less specialized professionals and settings such as GP outpatient clinics. Conversely, narrowing

requirements for a diagnosis may create a sense of false security and challenge molecular genetic and neurobiological research suggesting substantial transdiagnostic vulnerabilities (e.g., distress or emotional instability, fear, thought disorder) across many currently delimited disorders.

Transdiagnostic dimensions may be more fruitful targets for treatment, as suggested by the dimensional Hierarchical Taxonomy of Psychopathology (HiTOP) and the biology-based Research Domain Criteria (RDoC).

Hence, different symptomatology, depending on the specificity of defining symptoms, might require varying degrees of detail in diagnostic criteria.

The purpose of diagnostics is important to consider. Is it to meet societal or organizational needs rather than those of the individual and/or his or her family? Precise diagnostics should primarily inform treatment choices. Importantly, trustworthy, correct diagnostics is needed to ensure economic coverage of treatment in many countries.

It was also concluded that distress and impairment are core criteria for differentiating mental ill health from mental disorder.

A concluding remark was that terminology should ideally reduce stigma regarding mental health and ill health, without minimizing the extensive, continued suffering or impairment of individuals with severe mental disorders.

### **The use of novel techniques in mental health, today and in the future**

- Because mental disorders are expressed differently across individuals, biological markers could help differentiate subtypes and inform prognosis. This should be the case also with verbal and non-verbal data from recorded psychological therapy sessions, an area where Artificial Intelligence (AI) could be helpful.
- Combining Big Data from epidemiology, prevention, and healthcare with data-driven approaches could be used to “re-boot” diagnostic systems and taxonomy. However, there are important integrity issues.
- Precision medicine has the potential to generate more directed and adaptive treatment strategies. However, what the term precision medicine encompasses needs to be better defined.
- In a broader sense, mental health and psychiatric illness are strongly multidisciplinary areas, where psychiatrists and psychologists should work together with data scientists, social scientists and philosophers.

Two groups independently discussed the emergence of new technologies, digital tools, Big Data and AI and their applications and implications for mental health.

The groups concluded that we have good reasons to expect further important research to be done within neuroscience, Big Data, genomics, also in relation to psychiatric disorders. AI could possibly help early identification of at-risk individuals before further worsening of health.

However, this new knowledge will not necessarily translate into novel treatments due to the complex nature of psychiatric disorders. Still, more targeted treatments may sometimes result from the emerging field of precision medicine.

Mental health and disorder are necessarily strongly multidisciplinary areas. Social science, history and other disciplines should also be considered when developing models. Philosophers, psychologists and AI experts should be included in research teams dealing with, for example, the study of consciousness.

Since the advent of DSM-III, there has been an important debate on the expansion of psychiatric diagnoses. Demarcation of the core areas of clinical psychiatry is exceedingly important.

Some rapidly emerging disease areas, e.g., neuropsychiatric conditions, may become the focus of more attention in society. Development of new disease areas should be accompanied by ethical reflection on prioritization by decisionmakers. The identification and treatment of severely debilitating psychiatric conditions should be included in discussions on horizontal prioritizations.

At present, we have a range of treatments for mental illness that seem to work to some extent. However, in the future, combinations of data could form a broader or transdiagnostic base rather than diagnoses described as so-called taxons (a unit used in the science of biological classification).

### **Applications of AI**

- Digitalization may be used as a valuable tool in long-distance healthcare and diagnostics. AI may prove to be useful in data analysis and in treatment predictive tools for clinical decision-making and etiological research.
- We need to properly evaluate new techniques and measures before and after they are introduced or applied.

Randomized controlled trials remain important, but qualitative research methods should be used together with quantitative approaches and should also be included in systematic reviews.

The groups discussed the value and applications of AI. It was argued that AI could be used in clinical decision tools, as well as in prediction of which patients may not be helped by first-line treatments. Algorithms could provide a second opinion, improve diagnostic precision and help in avoiding bias. This may not be novel per se but the application to this disease area is partly new. An example from suicide prevention was provided. Individuals at risk of suicide may be missed because people in the immediate environment (e.g., social service staff, teachers, mental health professionals) can only access part of the available information on an individual at risk and may not understand how some factors or a combination of factors contribute to increased risk. It was pointed out that, like any other form of decision support, AI does not make the decisions, it makes suggestions. Because some information may not be available to AI, a person still needs to examine and talk to the patient.

Opinions were that there are risks both in relying too much on AI and not relying on it at all. There is a need for acceptance of AI on the part of practitioners, who may be hesitant about how their own relevance could be affected. If evaluated and used correctly, AI may provide more structured, objective and precise measurements and diagnoses. However, humans need to decide or program the outcome. For instance, AI could help define at what level and by what constellation of markers and symptoms someone should be diagnosed. In this context, it was mentioned that religion is integrated into assessment of mental health in some cultures.

Finally, the groups wanted to warn against uncritical enthusiasm for all “e-solutions”. The clinical physical encounter is still the core of practical healthcare and nursing. The art of healing may be helped by a screen but can usually do without, was one comment.

Final conclusions were that digitalization may be used as a valuable tool in long-distance healthcare and diagnostics. AI may prove to be useful in data analysis and in treatment predictive tools for clinical decision-making and etiological research.

The recommendations were to properly evaluate new techniques and measures before and after they are introduced in healthcare or applied.

Randomized controlled trials remain important, but qualitative research methods should be used together with quantitative approaches and should also be included in systematic reviews.

## Acknowledgements

This workshop was coordinated by the Swedish Medical Products Agency, in collaboration with the National Board of Health and Welfare, and The Public Health Agency of Sweden.

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

We wish to acknowledge all participants and those who contributed to the workshop design and content, lectures and who led and documented the group discussions:

Simon Cervenka, Niklas Långström, Magnus Boman, Hillevi Busch, Thomas Ekelund, Rolf Ahlzén, Sven Bremberg, Mikael Hoffmann, Viktor Kaldo, Miriam Entesarian-Matsson, Mitra Ghannad, Maral Jolstedt, Charlotta Löfberg, Annika Weren, Nils Feltelius, Charlotte Asker-Hagelberg\*

Corresponding author on behalf of collaborating organizations:

Charlotte Asker-Hagelberg\*, Swedish Medical Products Agency, Uppsala

\*[Charlotte.asker-hagelberg@mpa.se](mailto:Charlotte.asker-hagelberg@mpa.se)



## Sponsors



## Partners



# Pathways to Lifelong Mental Wellbeing October 2021

## Hormones and Mood

Erika Comasco, Cecilia Lundin, Alkistis Skalkidou, Inger Sundström-Poromaa, C Neill Epperson

### Background

Women of reproductive age represent approximately 50% of the worldwide female population and 25% of the total population. Hormonal variations characterize crucial phases in a woman's life, such as the menstrual cycle, pregnancy and postpartum, as well as the menopausal transition. These are acknowledged windows of vulnerability for mental disorders in women. As clinicians and researchers, we constantly meet female patients, women, journalists, and opinion-leaders who are shocked at the knowledge gaps surrounding women's mental health, especially at some of the most valued and treasured time points in their life. Within the open space of this workshop, we discussed the relevance of hormonal contraception, premenstrual dysphoric disorder, peripartum depression, and hormonal replacement therapy in relation to mental wellbeing.

### Approach

The goal was to generate questions, ideas or suggestions that can support policies promoting women's mental wellbeing. Specifically, the workshop sought to foster awareness of the challenges that accompany the reproductive lifespan as well as to support the development of targeted research and care for those women who react maladaptively to the hormonal fluctuations experienced in connection with the menstrual cycle, pregnancy and postpartum, and the menopausal transition. Dr. C. Neill Epperson's inspirational talk highlighted that women make up half of the world's population, gestate and nurture future generations, and make the vast majority of healthcare decisions for their families. Hence, improving women's health should be a major focus of public health across the globe. This initiated the general discussion about considering the issue in its entirety. Topic-specific overviews – including the perils and pitfalls of hormonal therapy (i.e., hormonal contraceptives or hormonal replacement therapy) and sex-specific psychiatric disorders (i.e., peripartum depression and premenstrual dysphoric disorder) – were then addressed:

- When combined oral contraceptives were introduced in the 1960s, women gained the ability to control their fertility and to separate sexual intercourse from reproduction. Today, there is a wide range of hormonal contraceptives available, with different routes of administration and various doses of progestogens and oestrogens. Apart from contraception, hormonal contraceptives provide additional health benefits such as decreased menstrual bleeding and amelioration of menstrual pain. Although hormonal contraceptives have been on the market for decades, several questions concerning their effect on mood still exist. Previous observational studies have suggested that hormonal contraceptive use may be associated with both improvement and deterioration, thus no consistent findings are at hand. Randomized controlled trials have suggested that some women do deteriorate while receiving hormonal contraceptive treatment, but the effect sizes are generally small and the clinical relevance is unclear. In recent years, however, some register-based observational studies have found an association between use of hormonal contraceptives and subsequent depression among adolescents, at least regarding non-oral preparations such as the vaginal ring and the hormonal intrauterine device. The risk decreases when adjustments for medical indication for hormonal contraceptives use (such as acne and dysmenorrhea) are made, but they still remain. There may be residual confounding factors among adolescents using hormonal contraceptives that are themselves independent risk factors for depression, but that are not captured using this type of study design. However, it is also possible that the maturing young brain is more sensitive to exogenous steroid hormones, at least during the teenage years.
- Notably, menstrual-cycle-related hormonal fluctuations are negatively experienced by ~1.7 billion women of reproductive age in the world. Maladaptive brain sensitivity to these changes likely leads to the severe psychological, cognitive, and physical symptoms repeatedly experienced by women with Premenstrual Dysphoric Disorder (PMDD) during the late





luteal phase of the menstrual cycle. Indeed, 5-8% of menstruating women suffer from PMDD. PMDD is distinguished by symptoms such as depressed mood, anxiety, emotional lability and irritability, which peak during the days immediately preceding menstruation. Patients suffering from PMDD experience these symptoms to such an extent that they interfere with their ability to perform socially, at work and at home. Importantly, many more women experience sub-clinical forms of PMDD that are impairing their daily functioning, often described as premenstrual syndrome (PMS). Despite the prevalence and the fact that this burden may affect women for a period of several years up to decades during their fertile age, our knowledge about the neurobiology and treatment of PMDD and PMS are rather limited.

- Another challenging period in a woman's life is pregnancy and the postpartum phase, which represent not only physiologically but also psychologically extraordinary events. Major depressive disorder at the time of childbirth, or peripartum depression (PPD), affects about 10% of all newly delivered women and has implications for the mother, the family, and not least, the child's neurodevelopment. Likely triggered by hormonal sensitivity in interaction with psychosocial factors, PPD is rarely spoken of, possibly because it is considered particularly shameful to develop a depressive disorder at this stage of life, and afflicted women are reluctant to seek medical care for their symptoms. Moreover, the growing foetus must be given extra consideration when discussing treatment options, adding to the challenges of managing these patients. From a clinical perspective, peripartum depression is thus an under-diagnosed and under-treated disorder with sometimes devastating consequences. Despite several plausible pathophysiological pathways for disease development, due to the extreme hormonal and immune system fluctuations during and after childbirth, to date there are no clinically applicable biomarkers of any kind available for PPD.
- Later in life, the menopausal transition, which can last for several years, is the most influential biological and health-related event for most middle-aged women. Indeed, peri- and post-menopause are marked not only by vasomotor symptoms, but also by cognitive and mood complaints that affect the quality of life and overall functioning of women. Additionally, deciding whether or not to use hormonal replacement therapy continues to be a point of some debate among clinicians caring for mid-life women.

Following these topic-specific presentations on the state of the art, the participants focused on the perils and pitfalls of hormonal contraception. While billions of women are prescribed hormone therapy to regulate their menstrual cycle and to control their fertility,

the impacts on the woman's mental and reproductive functions – including stress, mental health, quality of life, sexual functioning, and effects on brain and behaviour – are poorly known. The participants, national and international experts (including health-care professionals, scientists from academia, and the pharmaceutical industry), contributed by sharing their perspectives on the question: “Can birth control pills lead to an increased risk of depression for women?”. The main conclusion was that the majority of women should not expect to experience adverse mood due to hormonal contraceptive use. Clearly, advanced knowledge about the determinants of exogenous hormonal treatment in women is needed. Moreover, because young women (12-16 years) who discontinue use of an effective contraceptive are at increased risk of an unwanted pregnancy, the importance of investigating whether, and why, adolescents may be more vulnerable to developing hormonal contraceptive-induced adverse mood was stressed.

## Recommendations

Women's health, particularly women's mental health, is an extremely under-researched area that has suffered for years from a lack of systematic biological and psychosocial approaches, thus impeding the development of sex-specific prevention, screening and treatment. At the same time, depressive disorders, such as premenstrual dysphoric disorder and peripartum depression, affect large proportions of the female population during their reproductive and most productive years, at a societal cost that exceeds the costs posed by Alzheimer's disease, cardiovascular disease, diabetes, and cancer.

- First, men can no longer be the standard in biomedical research (e.g., drugs should also be tested in women, women should be represented in research studies, and the effect of sex should be adequately assessed statistically). This can be achieved through an understanding of sex-specific differences in mental health and illness.
- Second, the hormonal and reproductive state matters for medical and scientific assessment (e.g., there are sex differences and profound hormonal fluctuations across the life cycle and within the menstrual cycle). The wellbeing of women who are sensitive to hormone fluctuations should be investigated in relation to aging and lifestyle factors, as they are likely to impact mental outcomes. Screening to identify vulnerable women should be implemented and harmonization of specialized advice should be supported (e.g., to discuss mood problems associated with hormonal contraceptive use without discouraging women, to consider the risk-benefit trade-off of abortion, absence of side effects, positive health benefits, premenstrual syndrome, acne, endometriosis, and the risk of side effects associated with PMS, but without polarizing the discussion).



- Third, ways to ensure the health of women within a personalized, precision medicine framework need to be promoted. It is important to support the development of targeted research and care for women who react maladaptively to hormonal fluctuations experienced in connection with the menstrual cycle, pregnancy and postpartum, and the menopausal transition (e.g., to define the medical responsibility for women-specific neuropsychiatric disorders through collaborative and communicative actions between clinical expertise; to tackle therapy resistance or non-adherence through women-specific follow-up assessments; and to adjust prescription based on reaction; to diminish erroneous and delayed diagnosis by promoting dialogue between the research community, social welfare and healthcare providers). Moreover, reconciling research with actual clinical knowledge is needed.
- Lastly, and particularly relevant within sociocultural environments characterized by taboos and stigma on women’s mental health, the dissemination of our understanding of specific reproductive epochs as sensitive phases (e.g., involvement of social influencers to reduce stigma), awareness of the impact of hormones on women (e.g., campaigning against misinformation on the internet), and facilitation of treatment-seeking behaviour (e.g., to generate outreach for research and for the subject via the media), are potential strategies that could reduce the knowledge gap on women’s mental health.

In conclusion, the following recommendations represent a call to action to advance “sex/gender equality” in everyday life and in healthcare. Notably, the following questions should be the subject of dedicated strategical multidisciplinary programmes intended to foster better global health. How can we build fruitful collaborations

between scientists, governments, non-governmental organizations, and companies to find long-lasting solutions? What are the challenges? How can we work together to meet the needs of women? How can we encourage companies to support the development of therapies and services? How can we reduce stigma, discrimination, exclusion, and poor health, and improve appropriate healthcare? From this perspective, joint efforts between academia, the social welfare and healthcare sector, and policymakers are needed to advance women’s wellbeing worldwide.

### Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors and workshop organisers: Erika Comasco\*; Uppsala University, Cecilia Lundin; Uppsala University, Alkistis Skalkidou; Uppsala University, Inger Sundström-Poromaa; Uppsala University, C Neill Epperson, University of Colorado School of Medicine- Anschutz Medical Campus, USA.

Erica Comasco, Alkistis Skalkidou and Inger Sundström-Poromaa are affiliated with WOMHER, Uppsala University’s Center for Women’s Mental Health

\*Corresponding author: [erika.comasco@neuro.uu.se](mailto:erika.comasco@neuro.uu.se)



### Sponsors



### Partners



# Pathways to Lifelong Mental Wellbeing October 2021

## Addressing Peripartum Depression

Alkistis Skalkidou, Emma Fransson, Malin Henriksson, Karin Lindholm, Erica Lindahl

### Background

Depression is one of the world's most common psychiatric conditions, and depressive disorders rank among the leading causes of years lived with disability worldwide. Perinatal depression is considered a major depressive non-psychotic episode with onset either during pregnancy or within 4 weeks after delivery. Depression during pregnancy, namely antepartum depression, has a global estimated prevalence that ranges from 15% to 65%. In fact, antepartum depression is more prevalent in low-income countries, with an estimated prevalence of 34.1%. Postpartum depression is similarly more frequent in low-income countries, where the estimated prevalence is around 20%, while globally it is about 17%. Mood disorder episodes during pregnancy and in the postpartum period are associated with suffering for the whole family. Untreated depression during pregnancy is associated with higher risks of both preterm birth and low birth weight. In addition, peripartum depression may have long-term effects on maternal bonding, child development and the mother's future mental and even somatic health. Every year in Sweden, approximately four women take their lives around the time of childbirth, highlighting the importance of early detection.

Risk factors that we need to consider when trying to detect peripartum depression include a history of depressive episodes, low socioeconomic status, and inadequate partner support. Further, some biological risk factors have been established, including substantial changes in the hormonal milieu, such as the abrupt fall of oestrogen and progesterone levels after childbirth.

Validated questionnaires for depression (e.g., the Edinburgh Postnatal Depression Scale [EPDS]) are used to improve detection rates. However, it has been reported that only a small proportion of women with symptoms (as small as 6% in some cases) are identified and adequately treated in routine healthcare. Our current ability to predict the development of peri-partum depression, especially among first-time mothers, is deficient. To achieve good prediction, high-quality data from representative samples of the population, collected using modern methodologies, are needed.

Apart from the practical difficulties of identifying depression due to the overlap of cardinal symptoms of depression and normal experiences of the early postpartum period, there is generally poor knowledge about mental illness among expectant and new parents, and there is still a taboo surrounding the problem. This causes many to suffer in secret.

For those identified, new drug preparations based on allopregnanolone actions and transcranial magnetic stimulation treatment, for which there are promising preliminary results, are emerging as more effective treatment options for women with peripartum depression. However, because prevention should always be considered superior to treatment, efforts in the field of prevention are strongly encouraged. There are efficient psychological and psychosocial methods for preventing PPD, i.e., cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT) and peer support. However, such preventions are cost effective only among high-risk women. Therefore, better prediction models could enable us to design adequate prevention interventions.

### Approach

The objective of the workshop was to address depression around the time of childbirth, focusing on what underlies the continued stigma associated with peripartum depression and what concrete actions should we take to fight it. There are several questions we might pose: Do women become sick of becoming mothers, why is it important to start addressing depression around childbirth and its consequences, and how we can improve early identification of women at risk so that we can offer preventive interventions?

The workshop was attended by 15 participants. Because we aimed to take an interdisciplinary approach, experts from obstetrics, psychology, psychiatry, information technology, epidemiology and economics were invited. Besides these experts, the panel and audience consisted of users' organizations from Sweden and Norway, participants from the Philippines, Ghana and Kenya, and PhD students from Uppsala University and the WOMHER centre.

The workshop opened with an inspirational speech by Professor John Cox. The question of childbirth as a life event was brought to light, and biological, sociocultural and psychodynamic aspects of perinatal depression were problematized around it.

The speech was followed by shorter presentations from Professor Alkistis Skalkidou, who discussed the gap in depression rates between men and women, the challenge of diagnosing mental ill health during pregnancy due to symptom similarities to the period after childbirth, and the relatively stable rates of maternal suicide. Lastly, the importance of prevention, and how it can be achieved using user-friendly methods, was discussed.

The next presentation by Associate Professor Emma Fransson focused on how the Swedish healthcare system functions for women in the perinatal period. Problems in the system that have led to 1 out of 3 mothers not being offered screening for mental ill health after pregnancy were discussed. Fransson stressed that the mothers who are missed are mainly those with known risk factors for perinatal depression as well as that Sweden lacks perinatal mental health teams and mother-baby units.

Malin Henriksson and Karin Lindholm, representatives of the Swedish user organization “Mamma till Mamma” (mother to mother), introduced their organization as one focusing on peer support, information distribution via, among other methods, interviews and videos online on social media, and efforts to positively influence decisions affecting the care of these patients.

Lastly, Associate Professor Erica Lindahl presented the major gap in both income and sick leave between men and women and how this gap greatly increases after the birth of the first child. Further, the lack of further improvement by making a generous parental leave system even more generous was presented.

The participants were then divided into two break-out rooms to engage in more in-depth discussion.

The break-out rooms focused on **stigma and possible prediction possibilities**. Discussions concerned how using the term “mental health problems” vs. “mental disorders” might be helping to lift the stigma. Additionally, awareness needs to be raised among all pregnant women, healthcare staff, authorities, and the press. All women need to hear about the possibility of mental ill health around the time of childbirth during their visits to maternal healthcare centres, in exactly the same way as they hear about the risk for diabetes, anaemia or high blood pressure.

One important point considered was that women who suffer from PPD do not form a cohesive group. Instead, due to their different characteristics, they tend to create different subgroups that make treatment choice and effect challenging. Screening during pregnancy may also need to become a routine process in Sweden, where user-friendly and culturally adapted assessments should be offered to all. Of note was the comment regarding the research on the tools doctors could utilize to screen and immediately refer to other mental health professionals. Moreover, the cost effectiveness of some ongoing screening interventions during pregnancy should be evaluated. Screening data are not included in quality and national registers in Sweden at this time. This should be encouraged, as it would allow us to closely monitor whether guidelines are followed as well as to study interventions and identify areas in need of improvement.

Work in this area can be further facilitated by multidisciplinary teams that work diligently to increase efficacy in screening and offer different treatment options, as well as by taking advantage of all contemporary resource-effective solutions, like telepsychiatry and robotics solutions, once these have been evaluated for effectiveness and safety. Specialized education programmes for perinatal mental health among psychiatrists, psychologists, general practitioners and midwives – which are available in some countries — should be encouraged. The aforementioned suggestions will lead us towards a rather personalized healthcare model, focused on prevention and respect for the culture, needs and values of each woman.

There was a discussion on the important data presented on women’s earnings, which tend to decrease or stay stable around the childbirth years, while men’s earnings increase. Policies concerning parental and sick leave need to be implemented in an effort to minimize their impact on the pay gap and mental health.

## Recommendations

Based on our inspirational talks and discussions in the workshop, we put forward the following recommendations, which require collaboration between state agencies, organizations related to maternal health and healthcare professionals.

- Evaluate and implement methods to reduce the stigma surrounding perinatal mental ill health
- Focus on early risk identification and preventive interventions
- Adopt more personalized approaches and user-friendly assessments with respect to each woman’s culture, needs, and values
- Train sub-specialists in perinatal mental health and promote effective care pathways using



multidisciplinary teams

- Raise awareness among all pregnant women, health-care staff, authorities, and the press
- Promote user organizations and social media awareness campaigns
- Use resource-effective solutions such as telepsychiatry and robotics
- Evaluate screening in pregnancy and among partners
- Evaluate the potential benefits of shared parental leave and remote work

## Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors and workshop organisers: Alkistis Skalkidou\*, Uppsala University; Emma Fransson, Uppsala University & Karolinska Institute; Malin Henriksson, Mamma till Mamma; Karin Lindholm, Mamma till Mamma; Erica Lindahl, Uppsala University.

\*Corresponding author: [Alkistis.skalkidou@kbh.uu.se](mailto:Alkistis.skalkidou@kbh.uu.se)



## Sponsors



## Partners





## Pathways to Lifelong Mental Wellbeing October 2021

### Public Mental Health Promotion as an Integral Part of Clinical and Community Care Programmes

Valerie DeMarinis, Lars Lien

#### Background

The workshop topic dealt with international and Scandinavian work in public mental health, in both clinical and community care contexts. Though the current pandemic situation has certainly raised awareness of the urgency of integrating public mental health into public health, the need for such a development is not new. Four central themes were focused on;

#### *Public Mental Health as an Integral Foundation for Public Health*

An approach to public health that includes public mental health with a health promotion focus recognizes protective factors for mental health and wellbeing as well as broader determinants, including the lifelong impact of mental ill health and other risk factors. Moreover, promotion of mental wellbeing can both prevent mental and somatic disorders and aid in recovery from these disorders. Promotion and prevention are important for sustainable reduction of the burden of mental disorder, as once it has arisen, treatment can only reduce a relatively small proportion of the burden due to lack of treatment facilities and the fact that many years have often passed from the first symptoms to treatment-seeking behaviour. The challenge is to incorporate such efforts into non-clinical and clinical practice as well as to engage with a range of other service providers, including public health and primary care physicians. Public mental health needs to incorporate various strategies, ranging from the promotion of mental wellbeing to primary prevention and other forms of prevention and intervention. Planned strategies need to focus on individual, societal, and environmental aspects. Mental health, wellbeing, daily functioning, family cohesion and community members' interaction in general appear to benefit from integrated models of clinical and community care programmes.

#### *Public Mental Health Promotion and Resilience*

Public mental health promotion is tied to the promotion of resilience throughout the lifecycle. A public mental health promotion approach focuses on protective and salutogenic factors that contribute to resilience. Resilience is a complex concept, and it continues to be defined and approached in the research in different ways. Resilience is inherently related to the resources that an individual can draw on to overcome adversity. These protective or promotive factors come in a wide variety of forms that combine to make a person resilient. Three interacting levels of factors are involved: Individual, Social, and Community. A person's resilience is, however, not only an individual process but also an interpersonal one, that is, a human resource that develops and thrives in a culturally defined group and community context. Assessing resilience on the individual level only using intrapersonal measures may not provide an adequate picture of the actual situation and level of resilience, which requires also considering interpersonal resources.

#### *Mental Health Models Matter*

The model of mental health that employs only one continuum and features mental health and mental illness at opposite ends has been replaced by a model that frames mental health as two distinct, yet interacting, 'domains' (i.e., areas of experience, depicted as two separate continua): mental ill health and subjective wellbeing. The two-domain model permits a more complete and dynamic understanding of mental health and focuses on numerous interacting factors that can affect actual daily function.

#### *Exploring person-centred clinical care and person-centred community care from a public mental health promotion perspective.*

Person-centred orientations identify and incorporate a person's own goals, interests, and strengths into the effort to support the person's own efforts to manage his/her condition or circumstances while pursuing a meaningful life in the community.





© Unsplash / Annie Spratt

## Approach

The central aim of the workshop was to work together to make connections between concepts, contexts, and cultures for a closer examination of public mental health and health promotion in clinical and community care contexts.

Workshop participants reflected a global representation from: Kenya, Sri Lanka, Nigeria, India, Argentina, Columbia, Cameroon, Zambia, Zimbabwe, the UK, Sweden, and Norway.

The workshop was structured with two presentations and discussions following each. The first presentation, Session 1, was focused on: Public Mental Health Promotion: models and meanings. Below are the central questions provided and important themes raised in the breakout groups in response to Session 1.

***What are the actual differences for resilience and a lifetime perspective in approaching mental health based on a one-dimensional model as distinct from a two-dimensional model?***

1. Importance of both mental ill health and mental health (resilience) in interaction in mental health models.
2. Resilience is affected by socioecological changes (migration, economy, work, education,

political change, etc.).

3. Models for adaptation after collective trauma show the complexity, the challenges and the need for interaction of psychological, social, political, legal and existential (meaning-making) components.
4. The two-dimensional model was much better; differentiation between the two continua offered a balance that was necessary for mental health.
5. It is essential to have an interaction between the dimensions, though it may be difficult to explain in different contexts.

***What is the difference between mental health promotion and mental health prevention, and what consequences does confusion of these terms have for communities?***

1. The difference between promotion and prevention is partly linguistic, or it reflects a strength versus risk perspective.
2. Understanding mental health promotion in the cultural and contextual situation is essential.
3. In some contexts, more resources are focused on the stage of intervention and thereby health promotion is neglected, leading to increased mental distress and ill health.
4. Mental health 'promotion' refers to

empowering the community to control the determinants of mental health, and ‘prevention’ is more a matter of what the medical establishment did to prevent mental illness.

5. Community-based models related to mental health promotion. The friendship bench model from Zimbabwe was mentioned as one example of a model. It is described as a sustainable community-based psychological intervention.
6. Prioritizing mental health promotion in communities is difficult in developing countries such as India, Zimbabwe, and Zambia.
7. The difference between ‘promotion and ‘prevention’ in English was somewhat confusing, whereas in other languages the distinction seemed clearer. In certain contexts, in theory, ‘promotion’ referred to empowering the community to control the determinants of mental health and ‘prevention’ concerned more what the medical establishment did to prevent mental illness; however, in practice the two were used interchangeably.
8. In other contexts, ‘promotion’ referred to public awareness of mental health and ‘prevention’ referred to what people decided to do to make sure they maintained mental health.

***What are some experiences and examples of enabling clinical and community care programmes to interact for public mental health promotion?***

1. The Friendship Bench example from Zimbabwe was noted.
2. Educational programmes to avoid stigmatization surrounding mental ill health. (Type of stigmatization is different across cultures).
3. The Covid-19 situation disturbed healthcare systems but also enabled different pro-active initiatives.
4. From high-, low-, and middle-income countries, there was little experience of clinical and community programmes interacting.
5. These were two different systems: community-based mental health versus the public health authorities.
6. In certain contexts, there is very good public healthcare, but not for mental health.
7. There are developing educational programmes, but there are questions regarding the scope of outreach and difficulties finding resources for measuring effectivity.

The second presentation, Session 2, was focused on: Person-centred mental health within a community mental health approach with particular attention to mental health and substance use challenges. Below are the central questions provided and important themes raised in the breakout groups in response to Session 2.

***How can a person-centred approach be implemented in all countries, and will that have any effect on barriers and utilization of services?***

1. The person-centred approach is the best one, but in low-, middle-income countries, the community centres do not have the resources or capacity to implement it.
2. The gap also exists in high-income countries, i.e., it is the gold standard but not the reality, again owing to resources.
3. In addition to a lack of resources and capacity, there is also a challenge regarding attitudes and orientations if a disease-centred approach is the norm.
4. In addition to resources and capacity, culture plays a role; there are attitudes and beliefs that prevent change, e.g., ancestral beliefs and stigmatization can obstruct the use of a person-centred approach.

***How can we secure a place in society even for patients with severe mental health and addiction challenges through health promotion and prevention?***

1. Community-based mental health services are not well developed or funded, and therefore struggling with both promotion and prevention.
2. Clinical services attract people to hospitals for treatment and advice, but there is little or no follow-through in community contexts.
3. Attitudes play a great role and may create different challenges in high- and middle-, low-income countries: e.g., people’s values play a major role (if a person is not producing something and earning money, then he/she is not as valued).

***How can the public health system that cares for people with mental health and addiction problems utilize NGOs and civil society to promote inclusion and citizenship in the community?***

1. NGOs have programmes for treating substance use, these are well organized and people are involved, but such programmes do not really exist to address other mental health issues involving multi-level problems across health sectors.
2. NGOs provide counselling programmes in some areas and in fact hospitals/clinical services depend on NGOs for counselling services; in this way government and mental health work together.
3. Collaboration with NGOs goes a long way and there is great cooperation with local government; in the locations where they get involved, the tentacles of the NGOs spread to mobilize private mental health services.
4. NGOs are important but are not as organized and structured in high-income countries;

collaborations are fewer and could be developed to the benefit of all.

5. Different programmes/organizations have their networks, but they also operate in silos and do not have the channels when they need to cross sectors; the key is to develop these channels.
6. Education of mind and behaviour related to stigmatization, especially in isolated areas, is very much needed, and this could be achieved through NGO collaborations with government agencies.

## Recommendations

- Importance of a public mental health model that embodies health promotion for all Mental Health and Psychosocial Services (MHPSS) planning.
- Importance of using a community assessment framework and integrating community members.
- Multi-disciplinary and multi-sectoral interaction in programme monitoring and effectivity measurement.
- Emerging areas of new social determinants: temporary communities that become long-term living contexts; establishing safe spaces; mental capital; and existential capital.
- Programme Evaluation: coordinated internal and external, mixed-methods design, incorporated into the planning process from the beginning!
- Moving forward together for public mental health promotion and for identifying context-specific factors for policy change and policy operationalization.
- Collaboration to promote research and action research in public mental health promotion.
- Public mental health research centre organization to establish research/practitioner global network.

## Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors: Valerie DeMarinis\*, Umeå University, Uppsala University, Innlandet Hospital Trust, Norway; Lars Lien, Innlandet Hospital Trust, the Norwegian Psychiatry Association, Sapmi Klinikka, Karasjok, Norway, Arctic University and University of Tromsø.

Corresponding author: [valerie.demarinis@umu.se](mailto:valerie.demarinis@umu.se); [valerie.demarinis@teol.uu.se](mailto:valerie.demarinis@teol.uu.se)

Invited Workshop Leaders: Eolene Boyd-MacMillan, University of Cambridge, UK; Sofie Bäärnhjelm Transcultural Center, Sweden; Sigrid Helene K. Haug, Innlandet Hospital Trust, Norway; Maria Nordendahl, Umeå University. Rapporteur: Önver Cetrez, Uppsala University.

For the workshop photo we have chosen a bridge. The bridge is a metaphor for making connections, and such connections were indeed made for ongoing work in this area of public mental health promotion. Thank you to all the participants for sharing your knowledge, inspiration and desire to continue working together in this important area of mental healthcare and research.



## Sponsors



## Partners



# Pathways to Lifelong Mental Wellbeing October 2021

## How to Improve Access to Evidence-Based Psychological Interventions

WHAT'S HINDERING ACCESS TO EVIDENCE-BASED PSYCHOLOGICAL INTERVENTIONS FOR COMMON MENTAL HEALTH DIFFICULTIES? A FOCUS ON ADDRESSING SYSTEMIC LEVEL BARRIERS

Joanne Woodford, Paul Farrand

### Background

Common mental health difficulties such as depression and anxiety are prevalent, chronic, recurrent, and place a significant burden on the individual, service provider as well as wider society. However, access to evidence-based psychological treatments remains limited worldwide and in order to improve access, the implementation of a new organization of mental health services and innovative delivery strategies is required. Barriers to access occur at the level of the individual (e.g., lack of time, guilt, stigma, symptom recognition), provider (e.g., lack of mental health knowledge, unwillingness to diagnose and treat, stigma) and are related to the organization of service delivery (e.g., limited availability of trained professionals, lack of training in the delivery of evidence-based treatment, poor integration of mental health services in primary care and other health and social care settings).<sup>1</sup>

To address these barriers, a revolution in the organization of mental health service delivery, alongside innovative strategies to deliver psychological interventions, was required. The Improving Access to Psychological Therapies (IAPT) programme implemented across England represented such a revolution, delivering the least restrictive type of evidence-based psychological therapies of the correct treatment intensity at different steps within a mental health stepped care service delivery model.<sup>2</sup> Adopting a stepped care service delivery model facilitated the development of a new 'Practitioner' level psychological workforce that is now gaining interest across the world. This new workforce is trained in competencies to help people to engage in low-intensity cognitive behavioural therapy (LICBT), with the specific intervention techniques delivered through a range of CBT 'self-help' print, e-Mental Health (e.g., internet-administered CBT), and e-Mental Health (e.g., smartphone app) formats.<sup>3</sup> However, despite the success of IAPT in improving the percentage of individuals with depression and anxiety accessing

evidence-based psychological therapies per year, significant improvements can still be made.<sup>2,4</sup>

Potential solutions to further reduce the treatment gap may include: (1) **Rethinking service delivery**, including exploring ways of delivering mental health services within different sectors. For example, the employment sector, non-governmental organizations, locations commonly used by people with diversity or faith communities; (2) **Developing new workforces** beyond the traditional therapist/clinical psychologist role, such as the establishment of new psychological therapies practitioner workforces; and (3) **Utilizing digital technologies** (e.g., technologies utilizing the internet) that are facilitating the delivery of healthcare worldwide.<sup>5</sup> with their promise further amplified by the COVID-19 pandemic.<sup>6</sup>

### Approach

#### Objective

The objective of this workshop was to collaborate with members of the public, health and social care professionals, educators, researchers, and policy-makers, to discuss ways in which access to evidence-based psychological interventions could be improved further. Specifically, we explored:

- How to organize the delivery of psychology services to help increase access to psychological therapies;
- The potential for new workforce developments beyond the traditional therapist/clinical psychologist role, and;
- How to utilize e-mental health interventions, such as smartphone applications, to deliver and support psychological interventions.

The workshop was attended by participants from 6 different countries, including Indonesia, Kenya, Saudi Arabia, Sweden, the United Kingdom, and the United States of America. Participants had diverse backgrounds including, academia, clinical psychology, primary



healthcare, non-governmental organisations, private e-health providers, and pharmaceutical companies.

The workshop structure encompassed four main parts. First, workshop leader Dr Joanne Woodford welcomed workshop participants and gave an introductory talk on “the Psychological Treatment Gap”. This talk was followed by a presentation on “the Stepped Care Model” delivered by workshop co-leader, Professor Paul Farrand. Participants were randomly assigned to two breakout groups to discuss the Stepped Care Model. Participants were asked to describe their own country’s different mental healthcare systems and explore whether the stepped care model work could work within their country’s mental healthcare system. Breakout groups were facilitated by three PhD students from Uppsala University: Oscar Blomberg; Chelsea Coumoundouros; and Frida Svedin. Second, workshop co-leader Professor Paul Farrand gave a talk on “Low-Intensity Cognitive Behavioural Therapy and Psychological Professions”. This talk was followed by a presentation from the workshop inspirational speaker, Professor Catherine Gallop (Clinical Education, Development, and Research, University of Exeter, United Kingdom). Professor Gallop provided an over-view of the development, priorities, and implementation of the low-intensity workforce within England for children and young people.

These talks were followed by a further breakout session, whereby participants were encouraged to discuss what types of “intensity” treatments and different psychological professions they currently have within their own mental health care systems, alongside a discussion on barriers and facilitators to the implementation of new psychological workforces. Finally, Dr Joanne Woodford gave a presentation on “e-Mental Health”, followed by a third breakout session to explore how the different countries represented used e-Mental Health solutions and what barriers and facilitators existed to implementing e-Mental Health. Towards the end of the workshop, participants took part in a final breakout group whereby they were asked to summarize potential solutions to the challenges discussed during the workshop, including an appreciation of common challenges that exist across the different countries represented in the workshop and recommendations for improving the delivery of psychology therapies.

## Recommendations

Challenges discussed relating to the re-organization of psychological service delivery included: many countries represented within the workshop having healthcare systems that were controlled regionally (as opposed to nationally); a lack of collaboration between primary and secondary care; and long treatment waiting lists due to a lack of appropriately trained healthcare professionals. Some countries also experienced challenges pertaining to having insurance-based healthcare systems. Challenges to

re-thinking psychological workforces included: countries represented currently having workforces that were predominantly clinical psychology/CBT therapists and thus having only high-intensity CBT provision; the potential for professional “turf wars” should new psychological workforces be developed; and some healthcare contexts represented had preferences for pharmacological interventions. Challenges to implementing e-Mental Health included: a lack of national recommendations, guidance, and regulation of e-Mental Health interventions; a risk of interventions quickly finding themselves in the technological “valley of death” due to rapid technological advances; and both clients’ and healthcare professionals’ attitudes towards e-Mental Health, e.g., holding preferences for face-to-face contact. Some countries also raised challenges pertaining to low internet access, low smartphone access, and internet access being expensive.

Overall, participants in the workshop concluded that significant changes are required to improve access to psychological interventions, and these changes needed to be driven by governments and healthcare providers. As such, a “call to action” on an individual level was difficult. The workshop concluded that the following recommendations could help improve access to psychological interventions:

- Improving access to psychological interventions requires government level commitment and investment regarding the re-organization of service delivery models and the development of new psychological workforces.
- Should new psychological workforces be developed, there is a need for high-quality accredited higher education training courses with countrywide standardized national curriculums. Specifically, the need for psychological workforces trained in supporting low-intensity CBT was raised as a solution.
- “One size does not fit all” and subsequently there is a need for greater involvement of all key stakeholders (e.g., patients, informal caregivers, healthcare providers, non-governmental organizations, and other community level organizations), to develop and adapt psychological interventions and service delivery models to improve their acceptability and relevancy. A special consideration is required around language, to help overcome stigma related barriers to access.
- There is a need for increased integration of psychological services within community settings and community level organizations, for example, organizations commonly used by people with diversity or faith communities. Acceptability may be improved by reaching people within settings they already engage with and feel more comfortable in, thereby improving access.
- e-Mental Health interventions need to be of high quality, evidence-based, safe, and secure. Psychological workforces supporting e-Mental Health interventions require guidance and training. Organizations implementing e-mental health solutions require national level guidance and recommendations.





## References

1. Collins KA, Westra HA, Dozois DJ, Burns DD. *Gaps in accessing treatment for anxiety and depression: challenges for the delivery of care.* Clin Psychol Rev 2004;24(5):583-616.
2. Clark DM. *Realizing the mass public benefit of evidence-based psychological therapies: the IAPT program.* Annu Rev Clin Psychol 2018;14:159-83.
3. Farrand P, editor. *Low-intensity CBT skills and interventions: a practitioner's manual.* London: SAGE; 2020. p. 5-20.
4. Layard R, Clark DM. *Thrive: The Power of Psychological Therapy.* London: Penguin Books; 2014.
5. Wilhelm S, Weingarden H, Ladis I, Braddick V, Shin J, Jacobson NC. *Cognitive-behavioral therapy in the digital age: presidential address.* Behav Ther 2020;51(1):1-14.
6. Torous J, Jän Myrick K, Rauseo-Ricupero N, Firth J. *Digital mental health and COVID-19: using technology today to accelerate the curve on access and quality tomorrow.* JMIR Ment Health 2020;7(3):e18848.

## Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors and workshop organisers: Joanne Woodford\*, Uppsala University; Paul Farrand, University of Exeter.

Corresponding author: Joanne Woodford  
([joanne.woodford@kbh.uu.se](mailto:joanne.woodford@kbh.uu.se))



## Sponsors



## Partners



## Pathways to Lifelong Mental Wellbeing October 2021

### Animal-Assisted Interventions - How They Can Improve Wellbeing Among Children Facing Mental Health Difficulties at School

Lena Lidfors, Maria Andersson, Laura Hartman

#### Background

School dropout is a growing problem that goes hand in hand with increasing mental health issues among young people. For the pupils, longer school absence leads to problems such as anxiety, depression, reduced social contacts and falling behind in schoolwork, making it even more difficult to return to school. In the short term, the consequences can be conflicts within the family and stress for children, parents and the school. In the end, incomplete primary school education leads to challenges and difficulties in working life and may involve costs for society. Changes in policies and practice are needed to facilitate alternative actions for improving the rate of return to school. One important aspect of such actions is to provide a less stressful environment for pupils and good motivators to keep pupils in school.

Animals, together with their handlers, could provide stress relief and be the motivators needed for pupils to return to school. Practical experiences and international research have shown that contact with dogs, horses or farm animals can provide a motivating learning environment and thus be an effective way of increasing the return rate. However, lack of knowledge about research results and practical experiences, worries about allergy and fearfulness regarding animals may make school principals sceptical about introducing animal-assisted education in their schools. In this workshop, knowledge and experience in the field were brought together to discuss questions about how animals can support pupils with mental challenges.

#### The Workshop – approach and summary from discussions

The aim of the workshop was to raise different aspects of Animal-Assisted Interventions (AAI) for pupils of different ages who need extra support to return to school or to continue going to school. A second aim was to propose practical solutions for how animals can be involved without compromising work environments in

schools or human and animal welfare, i.e., One Health – One Welfare. The third aim was to discuss which policy changes are needed and how health economics is affected.

A total of 25 people were registered for the workshop, and the participants came from eleven different countries on four continents. There were policymakers, researchers and practitioners among the participants, which created variation in the discussions. During the workshop, the participants were divided into four groups in two separate group discussions, and each group was asked to discuss one of the questions provided in the pre-conference report.

#### Discussions

The workshop started with two inspirational speakers, Professor Andrea Beetz from the International University of Applied Sciences in Germany and Managing Director Michael Kaufmann from Green Chimneys in New York State, USA.

Andrea Beetz, who has a background as a psychologist and sees children and youth in her clinic, experiences that young people have more mental health challenges today. She talked about why animals, especially dogs, can support pupils in schools and mentioned that today dogs are common in German schools. Andrea Beetz talked about the theories that explain what animals do with humans and presented some research in the area. She suggested a new book on Neurodidactics, which is about how the human brain learns. She presented DOSEOX (Shower for successful learning), which consists of dopamine (curiosity/motivation), serotonin (relaxation and positive mood) and oxytocin (calm and connectedness, social interaction). “A DOSEOX-shower is the neurobiological version and affirmation of settings which promote successful learning – and this is the most important task for teachers” (quote from Brunsting, 2020). Beetz suggested that animals can promote a DOSEOX-Shower for the brain.

Michael Kaufmann started by presenting Green Chimneys (GC) in Brewster, New York, showing a film made by Fox News. Green Chimneys started already in 1947 and is a school for pupils aged 7-18. It is situated in the countryside and houses about 200 different animals, such as horses, cows, sheep, pigs, camels, llamas, chickens, rabbits and smaller animal species. The school also rehabilitates injured birds of prey and re-homes dogs. The school accommodates 200-250 pupils, half of whom live in the boarding school from Monday to Friday, while the rest commute daily. Student expenses are paid by local school districts.

Students coming to GC have different problems, such as autism, attention deficit problems (ADHD, ADD) or obsessive compulsive disorders (OCD). All students in GC have difficulties with emotional regulation and social skills. They train how to live with their difficulties, how to develop coping mechanisms, and how to handle anxiety and anger. When students have failed in regular school and come to GC, they need time. GC offers a nature-based treatment with animals. Traditional therapy and medication are also part of the treatment. The animals are not magic. It takes considerable effort to treat these problems. Students come for treatment and education.



© Jeanette Kobilsek

The animals are important, and animal welfare is important. Teachers must be willing to integrate animals into their education. Many students are fearful of the animals at the outset and need to be trained to interact with animals. Today, many children grow up without animals. Psychologists and teachers may feel they play a secondary role, because the animals play such a large role at GC. Yet the humans are very important and need to be mentioned. Teachers, para-professionals and recreation with the animals are important parts of the programme. Each animal has the potential to connect with people, and the pupils can select which animal they want to be with. This allows the pupil to have self-control. In public schools, pupils are often too limited. The motivational factor of being able to choose is significant. At GC, the pupils live with the animals and have the animals around them all day long; the animals become a part of the community. This gives a feeling of security. Michael Kaufmann finished by saying “I am an advocate for safe animal programmes that are safe for the animals and have safety precaution built in”.<sup>1</sup>

A video produced by CEVA Animal Health on the effects of dogs on children and the need for more research on health economics was shown.

## Recommendations

The workshop discussions were successful and resulted in several good suggestions and actions for the future. A summary of the discussions in the group is provided below.

Some groups discussed the very basis of the animal in relation to humans, talking about what animals really do with us. What was further noted in these groups was that the presence of animals relieves, relaxes, and releases people from the tension and stress of everyday life. The emotions of love, friendship, self-esteem, companionship, emotional support, stress relief, feeling of happiness and calmness are involved.

In some groups, there was an important discussion about the importance of comparing the societal cost of not finishing school with the cost of intervention, and in this way estimating the effect of intervention. Several groups mentioned the need to show improvement in important outcomes: health and education. We need the facts and figures from clinical studies; it is not enough for people to be happy and content. We need studies that compare ordinary counselling with AAI + counselling.

One point highlighted by several groups was that people working with animals need to have knowledge about the animals and what factors can affect their welfare, for example a therapist with a private practice. Further on, in relation to that, it was also mentioned that we need to be aware of the individual animal, and that the animal involved needs to suit the specific participant. We also need to consider the optimal length of time during which the animal works with its task.

Many groups also discussed respect for the animals involved, and the importance of performing some kind of risk assessment and regular animal welfare assessment, including veterinary check-ups.

There were some thoughts about having greater awareness of existing policies (e.g., dogs are allowed in buildings that do not serve food), and the possibility to change a number of policies, for instance by creating dog zones. In relation to this, the importance of international standards was discussed, as well as the importance of also addressing the sustainability of intervention effects.

One group suggested that we should not try to “reinvent the wheel”, but instead use experiences from our own work and that of others in Sweden to complement existing initiatives, the goal being to establish European and International standards for animal-assisted interventions.

Some international aspects were addressed in the groups, for example that in Zimbabwe they have rabbits and chickens in schools and that they will try to implement use of dogs.

The discussions resulted in several calls to action, summarized in the following points:

- We need to compare the societal cost of not finishing school to the cost of intervention. Saving costs is not necessary, if we can show health gains (Quality of Life).
- Individualized interventions: animals should act as a complement, the use of a multidisciplinary team.
- Analyse the learning environment in schools – what can animals add?
- Neurodidactics: information on how human brains learn and on how animals can facilitate learning should be included in education for teachers.
- People working with animals need to have knowledge about the animals; how can this be guaranteed?

## Acknowledgements

This brief is one in a series of eight policy briefs produced as an outcome of the digital 2021 Uppsala Health Summit “Pathways to Lifelong Mental Wellbeing.” Uppsala Health Summit is an international arena for dialogue, exploring possibilities and implementation challenges associated with advancement in medicine and public health. You can find the entire series of briefs and more information about Uppsala Health Summit at [www.uppsalahealthsummit.se](http://www.uppsalahealthsummit.se).

Authors and workshop organisers: Lena Lidfors\*, Swedish University of Agricultural Sciences (SLU); Maria Andersson, SLU; Laura Hartman, Uppsala Municipality.

\*Corresponding author: [Lena.Lidfors@slu.se](mailto:Lena.Lidfors@slu.se)

<sup>1</sup> See the webpage about GC for more info or e-mail Michael Kaufmann: <https://www.greenchimneys.org/>  
E-mail: [mkaufmann@greenchimneys.org](mailto:mkaufmann@greenchimneys.org)



---

### Sponsors



---

### Partners







**Uppsala Health Summit**  
c/o Uppsala Universitet  
Box 256  
SE-751 05 Uppsala