

# Wellbeing and e-health – the web-based application for relapse prevention

(overview essay)

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**Abstract:** *The phenomenon of treatment and social rehabilitation of people with addiction is inherently based on the cooperation and collaboration of many disciplines. These are mainly: psychiatry, addictionology, special pedagogy, andragogy, psychology and social work. The knowledge and experience of experts from the above mentioned fields and from the described institutions in the context of cooperation with information technology experts is reflected in the main result of the product discussed in the article. This is the software: a web application for mobile phones and other devices.*

*The Five Ways to Wellbeing method is a powerful tool for promoting mental health and wellbeing that has been developed by the UK NHS. This method focuses on five key areas that can help maintain good mental health and prevent relapse. These are 1. keeping in touch with other people, 2. regular exercise, 3. maintaining mindfulness, 4. learning new things, and 5. altruism.*

*This article presents part of the results of an evaluation study conducted within the framework of the TAČR project ÉTA: Application for the development of social competences of people with addiction in the context of indications for special education and therapeutic intervention, reg. no.: TL05000482. The project is guaranteed by Palacký University in Olomouc. The research was conducted at P-Centrum z.s., non-profit organization focused on addictology services, which is the application guaranty of the project. The aim of the paper is to present how the research implemented the Five Ways to Wellbeing methods into a web-based application for E-health. The methodological design of the study is based on qualitative research, specifically an evaluation study.*

*The results suggest that the Five ways to wellbeing method is suitable for implementation in this web-based application and offers further potential in addiction treatment and relapse prevention.*

**Keywords:** relapse prevention, E-health, drug dependency, psychotherapy, special education

## 1 Introduction

According to the World Health Organization (WHO), E-health is defined as the use of information and communication technologies (ICT) to promote health and health care. E-health encompasses a wide range of technologies, including mobile devices, sensors, electronic health records, telemedicine and other tools that can improve access to and quality of care. The goal of e-health is to provide more efficient, safe and accessible healthcare and to promote population health. In the case of this study, it is a web-based application.

In the workplace where the development of the application is carried out, wellbeing is one of the key approaches. The Five Ways to Wellbeing method has been used at the workplace for several years and one of the goals for the emerging application was to move this method into a web application.

The Five ways to wellbeing method is based on basic principle: If you increase the amount of positive activities in your life, you will also increase your sense of mental well-being and happiness and reduce cravings for drugs or alcohol.

The Five Ways to Wellbeing method gives simple examples of activities that can improve your inner well-being and help you move towards positive change. By making these activities primarily dependent on client responsibility, positive changes can be lasting. These are the following five activities:

- **Connect:** Deepen relationships – with the people around you: family, friends, colleagues or neighbours. Spend time with these relationships and the people around you. Write or call people close to you who you have not been in touch with for a long time.
- **Be active:** You don't necessarily have to go to the gym, but go for walks, ride a bike, go swimming or play football. Get off the tram one stop early. Find an activity you enjoy and incorporate it into your daily life.
- **Take notice:** Be more aware of the present, pay attention to your feelings and thoughts, your physical body and the world around you. This awareness, which some call "mindfulness" (sometimes translated as awareness, a specific type of mindfulness characterized by deliberate, alert awareness of phenomena occurring in the present moment), can positively change your approach to life and the way you face challenges.
- **Keep learning:** Learning new skills will give you confidence and a sense of accomplishment. So try signing up for a cooking class, or start learning to play a musical instrument, learn a foreign language or fix your bike.

- **Give:** Even the smallest act counts, whether it's a smile, a thank you or a kind word. Consider also volunteering at a non-profit organization.



Source: <https://lets-get.com/healthy-lifestyles/mental-wellbeing/five-ways-wellbeing/>

This method, or rather its application with the clients of the P-centre in Olomouc has a tradition since 2015, when it was implemented through evaluation research to our socio-cultural context of organization like a part of international projects. Since then it has been successfully used and the results of therapeutic work with it have been published. This is also the reason why its philosophy is used in the new application that is being developed here.

## 2 Methods

The project is designed to combine technical and non-technical research. During the project activities, the researchers developing the application meet directly with experts in specific topics of addictive behaviour and together are looking for ways to transfer the therapeutic potential of these fields into the final web-based application. This effort is based on evidence showing the increasing need for e-therapy and similar applications in working with the target group.

The chosen research design is qualitative evaluation study, which according to experts (Miovský, 2006), is suitable for research in the field of programs for our target group. It is a method that according to Hendl (2005) is suitable for social interventions and activities to eliminate or alleviate social problems. Evaluation research also considers more aspects of interventions and programs and is thus logically focused on practical aspects (implementation, usefulness) rather than theoretical aspects. In the case of this project, it is a qualitative evaluation of a web-based application for mobile phones and other devices aimed at relapse prevention and abstinence maintenance. In line with the theory of qualitative evaluation study, this will be carried out in all the described levels (phases): evaluation preparation, evaluation of the process itself, evaluation of the outcome. The evaluation methodology takes into account

the social, psychological, educational and health levels. The result may influence and enrich the practice of providing addiction services in the region or in the Czech Republic. There are two target groups of the evaluation. The first one is clients group (substance users). The second one is the professional staff group (special educators, psychologists, social workers, health workers therapists) who work with clients. For the purpose of the project we work with two types of samples – evaluation of the application from the participant's (client's) position, evaluation of the application from the professional's position. In the case of planned research, this is a quota sampling through institutions combined with a self-selection method.

Methods of obtaining qualitative data are focus groups and semi-structured interviews.

- **Focus groups:** We choose this method for the target group of workers as research participants. The advantage is the multidisciplinary discussion of the participants of these groups (psychologists, special educators, social workers, exusers).
- **Semi-structured interviews:** This method involves clients and experts as the research sample. The evaluative interview is the traditional tool used in the intervention. Clients are used to it and it is natural for them. It also allows us deep focusing on clients needs and barriers in using this applications and its effectivity.

Triangulation was used to check the validity of the data acquisition and in checking the data analysis and interpretation. In the case of this research, the triangulation held in methodological, content, perspectives and researchers fields. Data analyzing was done through analytic induction during focus groups repetition.

Within this paper, we used those parts of the interviews and focus group prompts that related specifically to the implementation of the Five Ways to Wellbeing method. These included four focus groups with practitioners from the professions described above, and then we relied on four interviews with other experts and we also had data from six interviews from clients (users of the app).

### 3 Results

The current version of the application – working name SOS APP – is a tool for clients of counselling services and addictology and their therapists. The current version of the application becomes of several subparts, which we will try to describe below. Among other things it facilitates communication and helps to plan the dates of individual sessions more flexibly.

- **The BoLR (box of last rescue):** It is a scheme that directs the app user to create content related to personal motivation (space to insert a photo, video, text), to

clarify and store their crisis contacts, and to create an individual crisis scenario in case of a lapse or other emergency.

- **Scale-up:** Lifestyle adjustments towards balance and sustainability are necessary to create the conditions for abstinence, and for maintaining it. By tracking individual areas such as sleep, diet, leisure, relationships, physical activity on a daily basis and recording them on scales in the app, clients are motivated towards being aware of self-care. Together with the therapist, they can retrospectively monitor and evaluate their relationship to personal satisfaction, stress, temptation and abstinence itself, which are also continuously recorded. The goal is to deepen understanding of the causes of one's own addiction in the context of one's life, mapping one's resources and strengthening one's own "self-efficacy." Ongoing completion is "rewarded" by lighting up graphic elements symbolizing each area.
- **Education:** Short educational blocks have been created for the above mentioned areas, combining the written text with audio version. Our aim was to be concise and easy to understand. The knowledge and understanding acquired is verified either by a short test (A-D) or by other graphic and interactive elements. Upon completion, a graphical element symbolizing each area is coloured to reveal bonus content of an entertaining or motivational nature.

The current version of the app is undergoing testing and commenting. If its functionality is verified, another challenge for the coming period will be to develop a version integrating perspectives from outside the Olomouc region so that it can be fully used nationwide.

### Wellbeing aspects in results

Here we present the resulting data from the interviews with experts and focus groups, always on specific steps of the Five Ways to Wellbeing method. The results suggest that the Five Ways to Wellbeing method is suitable for implementation in this application and that it opens up further potential in addiction treatment and relapse prevention.

- **Connect:** The phenomenon of contact is very specific to the success of abstinence. It is about positive contacts with people who do not use addictive substances. There is a consensus among research participants that quality relationships can provide support and encouragement when a client is facing the challenges associated with the recovery process. This support can help reduce feelings of isolation and loneliness that can be triggers for drug and alcohol use. Quality relationships can also help the individual find alternative ways to manage stress and deal with emotional issues that can lead to substance use. Relationships, according to the focus group results, also help to build healthier and more positive ways of spending leisure time and finding new meaning and purpose in life. This can be very

helpful in maintaining abstinence. Relationships also help to develop better communication and interpersonal skills. This can help individuals to interact better with other people and to improve their social environment, the quality of which is a prerequisite for maintaining abstinence. In the app, this topic is developed in the supportive contacts, as well as in the interactive relationship education and also in the scales.

- **Be active:** Analyses show that physical activity and movement are effective ways to reduce stress and anxiety levels in the body and mind. Movement increases endorphin levels, which can improve mood and the desire to abstain. Movement helps with managing emotions. Physical activity and movement are effective ways to manage emotions and control impulses. These skills are important for relapse prevention because they can help an individual better manage their feelings and behaviors. In the app, this theme is active in the education on the importance of movement and also in the rating scales.
- **Take notice:** There is a consensus among research participants that mindfulness is an important tool for a successful outcome. Mindfulness in this area usually refers to the ability to be fully present in the moment, to observe and perceive internal and external experiences without judgement or criticism. There is strong support for mindfulness activities across the professional spectrum of our research and in particular for: recognizing cravings and preoccupations, stopping thoughts leading to rumination, and regulating emotions. Mindfulness helps individuals recognize and better regulate their emotions. When people are aware of their emotions, they can use more effective strategies to manage emotional fluctuations and reduce stress. Mindfulness is also embedded within the app, this is the educational part of the app where this topic is directly addressed, but it is also included in other topics within the development of mindfulness in movement, food, relationships, etc.
- **Keep learning:** Developing cognitive skills and learning new things helps to improve cognitive functions such as attention, memory and thinking. This in turn can lead to improved performance in everyday activities and improved quality of life. Other important themes that emerged from the discussion on this topic were that learning has a significant impact on decision-making, adaptability and self-esteem. The topic of learning is embedded in the app itself – in the words of one research proband “a college of sobriety”.
- **Give:** Altruistic behavior is helping others without expectation of reward or benefit to oneself. It is important for several reasons: it strengthens relationships, increases satisfaction, and reinforces ethical values. It was mentioned in the focus group that some studies show that people who volunteer have a lower risk of depression and anxiety. However, there were other statements that were agreed upon, namely that promoting altruism is also an ethical issue and will be difficult

to set into an application. This leaves room for consultation with the therapist during the session. Within the app mentioned, this point does not have a module after all, but the philosophy of these altruistic activities is embedded in the ‘my day’ rating scales. Here the presence of a therapist intervention is also important for appropriate altruistic activities.

## 4 Discussion

Mobile and web-based applications for addicts are common practice in English-speaking countries. People with addictions can access them in their mother tongue, they are free, and they can even choose from a wider range according to personal preference or user reviews. But what options are open to people in the “Czech online” at the turn of 2022 and 2023? The most persistent searchers will find mentions of the Čára app for homeless and at-risk drug users in Brno, the iTRIP app designed for experimenters with hallucinogenic substances to assess and map their condition during intoxication, or the Quitzilla translation app in general “for all those who want to break their habits and addictions.” However, the most common apps for addicts we come across are a web-based questionnaire assessing your level of addiction, a “sobriety calculator”, or a calendar counting your days of abstinence.

The use of online environments for counseling and treatment services became especially prevalent during the COVID-19 pandemic.

The web application that is the subject of this research will include the following content in addition to the concepts of the Five Ways to Wellbeing method:

- **Reminders for regular health self-care:** The app can send reminders for regular health care, such as regular meals, sleep, and exercise. These basic steps can help maintain a stable mood and reduce the risk of relapse.
- **Mindfulness training:** Mindfulness is a method that focuses on being aware of the present moment and relaxing your thoughts. The app can include mindfulness practice instructions so that users can easily practice this technique and reduce anxiety and stress.
- **Community support:** the app can encourage users to create a social network profile and join a community of people with the same problem. Users could share their experiences, encourage each other, and help each other to prevent relapse.
- **Personalized planning:** The app could in the future provide a personalized plan for each user, based on their individual needs and goals. This plan could include mindfulness exercises, relaxation techniques, motivation for healthy eating and exercise, and other elements.



- **Stress reduction tools:** the app could include a variety of tools to help reduce stress and anxiety, such as meditation exercises, relaxation music, and visualization.
- **Progress tracking:** The app could allow users to track their relapse prevention progress and provide motivation and encouragement to continue. This could include tracking the number of days the user feels well, the number of mindfulness exercises, and other criteria.

The current evaluation study results also highlight the risks of this method. One risk is that users may lose interest in the app and its use after a short period of time. This can happen if the app is not motivating enough or if users do not feel that the app provides enough value to them.

Another risk is that the app may not be suitable for all users. For example, some features may be too complex or inappropriate for certain groups of users. It is therefore now important that the app is designed to be accessible to as many users as possible. We are currently evaluating the results with clients who are testing the app, here we are trying to catch shortcomings and implement suggestions from outside.

## 5 Conclusion

The article presents a partial part of the result of the evaluation study, which is conducted within the project TAČR ÉTA: Application for the development of social competences of people with addiction in the context of indication of special educational and therapeutic intervention, reg. no.: TL05000482. The project is guaranteed by Palacký University in Olomouc and the research was conducted at the P-Centrum, which is the application guarantor of the project. The aim of the paper was to present how the research managed to implement the Five Ways to Wellbeing methods into a web-based application for E-ealth. The methodological design of the study is based on qualitative research, specifically an evaluation study.

The results suggest that the Five ways to wellbeing method is suitable for implementation in this application and it provides further potential in addiction treatment and relapse prevention.

An interactive web-based application could be ideal for users who want access to more extensive information and relapse prevention tools. The final app also includes videos, audio recordings and other interactive elements to help users maintain good mental health and relapse prevention.

Overall, the Five Ways to Wellbeing method has great potential for relapse prevention in a digital environment as part of e-health. Using this method could provide users with a simple and effective tool for maintaining good mental health and preventing relapse.



## Ethical Aspects

The ethical aspects of the research are handled by having the research probands give written consent, as well as the institution where the research is conducted. All stakeholders act under anonymous codes.

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## References

- [1] Hendl, J. (2016). *Kvalitativní výzkum*. Portál Publishing.
- [2] Hennessey, G. (2018). *Mindfulness pro každý den: Malými kroky k velkým změnám*. Grada Publishing.
- [3] Miovský, M. (2006). *Kvalitativní přístup a metody v psychologickém výzkumu*. Grada Publishing.
- [4] NHS. (2019). *Five steps to mental wellbeing*. Retrieved from <https://www.nhs.uk/conditions/stress-anxiety-depression/improve-mental-wellbeing/>
- [5] NEF (New Economics Foundation). (2008). *Five ways to wellbeing*. London: NEF.
- [6] Witkiewitz, K., Bowen, S., Douglas, H., & Hsu, S. H. (2014). *Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician's Guide*. Guilford Press.

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