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Evidence-Based Psychological Internet Interventions: Challenges, Best Practices, and Recommendations

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Abstract

Goal: The number of psychological interventions delivered through new technologies, such as apps, chatbots and online platforms (so called 'internet interventions') is growing rapidly. Their development is recommended by the World Health Organisation (WHO) due to their accessibility both in the context of geographic and economic exclusion, the limited number of psychotherapists, and long waiting times to receive psychological services.

Internet interventions, delivered as standalone programs or as a supplement to traditional psychological support and psychotherapy, have been confirmed to be effective by numerous meta-analyses. However, some solutions which have appeared on the market are not based on theoretical models and their effectiveness remains untested or insufficiently researched. This article, based on a narrative literature review, positions internet interventions as evidence-based solutions, while also discussing the key challenges facing this field of research and clinical practice.

Thesis: The current most important challenges are: (1) difficulties with the classification and naming of internet interventions; (2) the need for high-quality scientific evidence which confirms the effectiveness of specific interventions rather than just its theoretical basis; and (3) accounting for specific aspects of internet interventions, such as co-designing solutions, user-experience, digital therapeutic tools, and gamification.

This article outlines current practices concerning internet interventions, discusses examples of associated regulations, and outlines user needs regarding the safe selection and use of internet interventions.

Conclusion: Internet interventions are evidence-based. Given the current state of regulation however, particular care should be taken in clearly communicating how the effectiveness of any given intervention has been tested against standards, enabling patients and professionals to make informed choices.

Keywords: Internet interventions, eHealth, evidence-based interventions

With the spread of internet access and new technologies, the number of digitally-mediated psychological interventions available is growing (Rief et al., 2024). These are structured programs based on theoretical models, often consisting of psychoeducation and interactive exercises. Importantly, this does not represent treatment conducted via instant messaging applications (e.g. Zoom) where the form of therapeutic remains the same as in face-to-face psychotherapy and where only the method of contact changes. Internet interventions increase the availability of mental health treatment thanks to their scalability (being able to reach a large number of users) and reduced overall cost, as highlighted by the World Health Organisation which recommends their implementation (WHO, 2022).

Scientific research demonstrates that online interventions can act as a safe and effective form of treatment. However, as with traditional psychotherapy, this only applies to solutions which have been tested and whose efficacy for specific disorders or risk groups is empirically proven, and not to all activities which

utilise emerging technologies. The aim of this literature review is to: (1) present definitions and criteria which scientifically proven internet interventions should meet, and (2) discuss the challenges in assessing the effectiveness of internet interventions, while also accounting for the varying quality of scientific evidence (Seiferth et al., 2023). These challenges stem in part from the high degree of heterogeneity in the definition and classification of internet interventions, their grassroots development outside of clinical environments (especially in the case of mobile applications), and the need to take into account factors not considered in the assessment of traditional psychotherapy effectiveness, such as user-experience (UX) or the digital therapeutic alliance. This article attempts to organise current knowledge on the standards which internet interventions should meet.

Internet Interventions – A Definition

Psychological internet interventions are tools aimed at the prevention or treatment of mental disorders, implemented using digital technologies. These include not only interactive websites, mobile applications and chatbots, but also virtual and augmented reality, social media, wearable electronic devices, and games (Andersson, 2018; Smoktunowicz et al., 2020). The term 'internet interventions' is widely accepted within the scientific community (Ritterband et al., 2003), however it is not a universal term. Within this area of research, there are many terms in use, e.g. web-based, internet-based, or mobile-based interventions, digital health, digital mental health, and e-mental health. The latter two terms (used in WHO nomenclature) are broader than internet-interventions and include, among others, solutions supporting diagnosis and the operation of medical systems. The diversity of terms stems primarily from the work of researchers from different centres around the world who began working on such interventions at broadly the same time (Smoktunowicz et al., 2020).

Internet-interventions originate from clinical psychology and psychiatry, but are used in many other areas of psychology, including occupational psychology (Rogala et al., 2016; Smoktunowicz et al., 2021), health psychology (Webb et al., 2010) and social psychology (Escobar-Viera et al., 2023; Maciejewski & Smoktunowicz, 2023). In terms of technology use, these interventions can be considered to exist on a continuum: from fully-automated (self-guided/standalone), through human supported/guided-interventions (where support may take various forms from technical assistance, through regular feedback (e.g. via email), to blended formats where traditional therapeutic sessions are interspersed with digital contact (Karyotaki et al., 2021; Topooco et al., 2017). Fully automated interventions are generally less effective than those including even limited human contact (Baumeister et al., 2014), but their advantage is high scalability and reduced stigma (Carlbring et al., 2023). One of the possibilities being currently tested to increase the effectiveness of fully automated interventions is the use of artificial intelligence (Carlbring et al., 2023).

After 30 years of research it is now known that online psychological interventions are, on average, at least as effective as traditional interventions. This

has been gradually confirmed, firstly in studies comparing online psychological interventions to placebos (Spek et al., 2007), and then to traditional treatments with proven effectiveness, such as cognitive-behavioural therapy (Carlbring et al., 2018). Meta-analyses confirm the effectiveness of internet interventions for a wide range of problems, including mood disorders (Karyotaki et al., 2021), anxiety disorders (Kothgassner et al., 2019), stress (Heber et al., 2019) and many more (Andersson & Carlbring, 2022). Although most of these interventions are based on cognitive-behavioural psychotherapy, new technologies are also increasingly and successfully used in psychodynamic therapy (Lindegaard et al., 2020).

Motivation for the Development of Internet Interventions

The primary motivating factor behind the development of internet interventions is their scalability, which is impossible to achieve in a model based solely on the work of specialists (Andersson et al., 2018; Iribarren et al., 2017). The lower economic costs in comparison to traditional psychotherapy are also often emphasised, although there is no consensus in this area (Kolovos et al., 2018). These two factors are particularly important because, as the WHO points out, mental health services are underfunded, and mental disorders remain undertreated in all member states (WHO, 2022). From the perspective of the stepped-care model (i.e. a model in which the intensity of care increases in line with the severity of problems observed) (Davison, 2000; Jeitani et al., 2024), online interventions are classified as low-intensity interventions (i.e. first-level interventions which do not require the involvement of a therapist or require only minimal involvement) and can be an important part of mental health treatment and prevention (Shafran et al., 2021). Such solutions may be particularly important in Poland, where according to a 2024 report, the average waiting time for an appointment at a mental health facility is 128 days, and there are still counties in the country which do not offer any form of treatment in this area (Kulwicka & Bielecki, 2024).

It is also worth noting the additional possibilities associated with the use of online interventions. Not only do they ensure greater confidentiality and reduce the risk of stigmatisation (Karyotaki et al., 2015), but they also allow for the flexible personalisation of intervention. Through the collection of data in the user's everyday life (e.g. using a smartphone), interventions may be based on ideographic models, i.e. created for the specific person (Kornacka et al., 2023; Scholten et al., 2025) and therefore be better tailored and more effective (Cohen & Schueller, 2023).

Internet Interventions as Scientifically Proven Methods of Treatment

Psychological online interventions should be primarily evidence based. In the case of this form of intervention, this requires not only a sound theoretical

basis, but also a confirmation of effectiveness in high-quality empirical studies (Seiferth et al., 2023), and re-evaluation of this effectiveness following substantive or technological changes (Torous et al., 2019). A theoretical foundation is crucial for the effectiveness of such interventions as it allows for mechanisms of change to be identified, i.e. the psychological processes which contribute to any therapeutic effect (Steubl et al., 2021). Furthermore, theory serves as a roadmap for the rational selection of intervention content (techniques, models) and ensures its consistency, which is the foundation for the predictability and clinical relevance of the results (Seiferth et al., 2023).

Randomized controlled trials (RCTs) are considered the 'gold-standard' in assessing the effectiveness of psychological interventions including internet interventions (Mohr, 2024). By randomly assigning participants to either an experimental group receiving the intervention or a control group, RCTs minimise the risk of selection bias and reduce the influence of confounding factors. In the case of internet interventions, RCTs are essential to distinguish whether the observed effect is due to the intervention or to external factors. This increases the reliability of attributing the observed effects to the intervention specifically.

The effectiveness of interventions in RCT studies is always assessed in relation to a control group, which is why the choice of this group acts as a key methodological decision (Mohr et al., 2009; Sibbald & Roland, 1998). Mohr et al. (2009) propose dividing control groups into three types: (1) groups in which the intervention is strictly defined and controlled by the researchers (e.g. an active control group); (2) groups receiving standard treatment (so called 'treatment as usual' groups [TAU]), in which the participants receive routine forms of support at the site where the research takes place, e.g. a specific form of traditional psychotherapy; (3) groups in which participants do not receive any form of intervention during the study – this may mean a complete lack of access to the tested intervention or access only following completion of the study (known as a waitlist control group).

It is worth noting that RCT studies may have different objectives, depending on which aspect of the psychological intervention they focus on. Efficacy studies examine whether a given intervention works under ideal conditions. Effectiveness studies focus on whether the intervention produces the expected results in clinical conditions (Andersson et al., 2010).

An important role is also played by pilot studies (a smaller version of the planned RCT, which allows for the practical pre-testing of its primary elements) and feasibility studies, which aim to assess whether, in a given context, it is possible to conduct an RCT on a given intervention, taking into account, among other things, the acceptability of the intervention i.e. its reception by users, need for the intervention, the possibility of implementation of the intervention in real-world conditions, as well as the potential for adaptation to a new context or population.

When planning an RCT, particular attention should be paid to the selection of an active control group (Mohr et al., 2009). Although the use of waitlist control groups is usually cheaper and justified when verifying the effectiveness of a new intervention for the first time, it is important to remember the significant

limitations of this solution, which may be both statistical (overestimating of effect sizes as a result of comparing whether the intervention is better than 'doing nothing') and ethical (individuals who should have access to proven, effective support are placed on a waiting list; Mohr et al., 2009; Mohr, 2024). Additionally, researchers recommend exploiting the technological potential of internet interventions and going beyond classic self-report measures in assessing the effectiveness of interventions in RCTs, e.g. through the use of multiple daily measurements (EMA: ecological momentary assessment) or the use of wearable measurement devices during and after the intervention (Myin-Germeys et al., 2024). EMA, through the use of real-time measurements can help in overcoming some of the limitations of self-report measures, in which retrospective recollections of emotions and events may be distorted by subsequent employment of regulatory strategies (Koval et al., 2023). Additionally, the use of wearable measurement devices allows for the measurement of psychophysiological correlates of emotion regulation (Lin et al., 2024).

A characteristic feature of RCT studies is the equal treatment of participants in all groups with the exception of the type of intervention received, or lack thereof. Furthermore, the analysis of the results is conducted in accordance with the intention-to-treat principle, which means that data are analysed on the basis of the initial allocation of participants to groups, regardless of whether they ultimately took part in the intervention. Another important element of the use of RCTs is the use of blinding, which aims to limit the influence of bias and expectation effects on the results of the study (Sibbald & Roland, 1998). It involves concealing information about the assignment of participants to either experimental or control groups from the research participants, researchers, assessors, and sometimes also the individuals responsible for conducting statistical analyses (Schulz & Grimes, 2002). In the case of psychological internet interventions, such complete blinding is often difficult to achieve – participants are usually aware of whether or not they are participating in an online intervention, are undergoing traditional therapy, or are on a waitlist. Nevertheless, it is both possible and recommended in this case to blind the other groups mentioned (Eysenbach & CONSORT-EHEALTH Group, 2011).

In order to meet these challenges and to ensure high quality and transparency in reporting research on internet interventions, it is recommended to follow the CONSORT-EHEALTH guidelines (Eysenbach & CONSORT-EHEALTH Group, 2011). These guidelines are an extension of the general CONSORT (Consolidated Standards of Reporting Trials) guidelines adapted to the specific nature of digital interventions and require, among other things, a detailed description of the technical version of the intervention being tested and instructions for how to use the intervention. Compliance with these recommendations is crucial for maintaining evidence-based standards in eHealth (electronic health – the use of information and communication technologies in all health-related activities).

For a more comprehensive assessment of the intervention, it is also important to understand the mechanisms of change, including, through an analysis of the effects of individual components of the intervention (e.g. in studies comparing the full version of the intervention with a version lacking one of its elements

– known as dismantling studies – or enriched with an additional component – known as additive studies [Steubl et al., 2021]).

The Current State of Research, Recommendations, and Regulations

Platform-based internet interventions are often used in the context of institutional healthcare, and their effectiveness is systematically monitored in high-quality studies testing their effectiveness against various disorders (see Table 1, p. 238), including quantitative systematic literature reviews (e.g. Carlbring et al., 2018). Therefore in this section we would like to focus primarily on the mobile application market, the state of which, according to current research, seems alarming. Most mHealth applications (mHealth: the use of mobile devices and/or wireless technologies to support health) do not have a solid empirical bases – according to a meta-analysis, less than 5% have been evaluated in accordance with evidence-based practice standards (Cohen & Schueller, 2023; Lecomte et al., 2020; see also Table 2, p. 239). Literature reviews and meta-analyses indicate that the quality of scientific evidence in this area is poor. Research concerning mobile applications often involves including people with higher education qualifications, which undermines their use as solutions for populations with limited access to treatment. The effectiveness of interventions in the medium- and long-term is also rarely assessed (Cohen & Schueller, 2023; Marcolino et al., 2018; Tarricone et al., 2022). Many applications which are focused on mental health in the broad sense are published as lifestyle applications[2] (Freyer et al., 2024). Most of these applications have not been tested in any way in terms of their impact on mental health, and studies which have attempted to verify their effectiveness show a very low effect (Prentice et al., 2024). Therefore, they cannot be classified as internet interventions with scientifically-proven effectiveness, and describing them as supporting mental health seems unjustified. Reluctance to evaluate effectiveness in randomised trials or to register applications as medical devices stems from not only concerns regarding loss of credibility and the costly nature of such research (Freyer et al., 2024; Hall et al., 2024; Prentice et al., 2024), but also from regulations which are not adapted to online interventions and from delays that both research and registration processes generate compared to a rapid market launch of lifestyle applications (Freyer et al., 2024; Hall et al., 2024; Prentice et al., 2024).

The most common model for regulating the market for internet interventions is to register them as medical devices. An application qualifies as a medical device if its main purpose is to diagnose, prevent, monitor, treat, or to alleviate

[2] Digital tools designed for a wide range of users supporting general healthcare, such as applications for monitoring physical activity, sleep, or diet management. These are not designed to improve specific psychological processes or reduce symptoms of psychological disorders, so are not based on theoretical models of mental health. Therefore, they should not be described as beneficial for improving mental health or suggest any therapeutic benefit if their effectiveness in this regard has not been confirmed via scientific research.

a disease. In Poland, such registration is handled by the Urząd Rejestracji Produktów Leczniczych, Wyrobów Medycznych i Produktów Biobójczych (URPL) (EN: Office for Registration of Medicinal Products, Medical Devices and Biocidal Products). However, unlike the registration of medical devices by the United States Food and Drug Administration (FDA), the Polish system does not have specific guidelines for eHealth and mHealth products.

Table 1

Examples of Meta-Analyses on the Effectiveness of Online and Mobile Interventions, Compiled Based on Crocamo et al. (2025)

Meta-analysis	Method of intervention / Form of intervention / Specialist involvement	Dependent variable	*N* studies included in the meta-analysis	Number of participants included in the analysis	Effect size (95% CI)
Schizophrenia-spectrum disorders					
Morales-Pillado et al., (2023)	Computer-delivered intervention / Mixed approaches / Varying degrees of professional support	Reduction of positive and negative symptoms	29	Not reported	– 0.11 (– 0.25 to – 0.02)
Bipolar disorder					
Anmella et al., (2022)	Smartphone-delivered intervention / Automatic monitoring / Varying degrees of professional support	Reduction of manic symptoms	4	376	– 0.05 (– 0.36 to – 0.27)
Depressive disorders					
Andrews et al. (2018)	Internet interventions / iCBT / Mainly guided by a specialist	Reduction of depressive symptoms	10	3,192	– 0.67 (– 0.81 to 0.51)
Specific phobia					
Mor et al. (2021)	Internet-delivered interventions / Exposure / Specialist guided	Reduction of symptoms of specific phobia	3	298	– 1.07 (– 1.62 to – 0.51)
Social anxiety disorder					
Pauley et al. (2023)	Internet-delivered interventions / iCBT / Varying degrees of professional support	Reduction of symptoms of social anxiety disorder	20	1,960	– 0.76 (– 0.91 to – 0.62)
Panic disorder (with and without agoraphobia)					
Pauley et al. (2023)	Internet-delivered interventions / iCBT / Majority supported by a specialist	Reduction of symptoms of panic disorder and agoraphobia	15	837	– 1.08 (– 1.39 to – 0.77)
Generalised anxiety disorder					
Eilert et al. (2021)	Internet-delivered interventions / Blended approach / Specialist-led	Reduction of worry	14	898	– 0.75 (– 0.97 to – 0.53)

Continuation of Table 1

Meta-analysis	Method of intervention / Form of intervention / Specialist involvement	Dependent variable	*N* studies included in the meta-analysis	Number of participants included in the analysis	Effect size (95% CI)
Obsessive-compulsive disorder					
Imai et al. (2022)	Internet-delivered interventions / Blended approach / Fully automated intervention	Reduction of obsessive-compulsive symptoms	9	659	– 0.47 (– 0.73 to – 0.22)
Post-traumatic stress disorder					
Simon et al. (2021)	Internet-delivered interventions / iCBT / Guided by a specialist	Reduction of post-traumatic stress symptoms	10	608	–0.61 (– 0.93 to – 0.29)
Bulimia-nervosa					
Linardon et al. (2020)	Internet-delivered interventions / iCBT / Guided by a specialist	Reduction of eatingdisorder symptoms	3	240	– 0.63 (– 1.19 to – 0.06)

Table 2

List of the 5 Most Popular Applications in the Mental Health Section of the AppStore and Google Play (as of 25 November 2025)

Application	AppStore / Google Play (Position on list in section Mental Health)	Methods / Aim	RCT DOI
Quabble (Daily Mental Health)	AppStore (1)	CBT intervention / Reduction of stress, anxiety and depression	n/a
BetterMe	AppStore (2); Google Play (1)	Meditation / Psychoeducation / Relaxation	n/a
Daylio	AppStore (3); Google Play (5)	Mood diary	Eltahawy et al. (2024)
Stoic	AppStore (4)	Mood diary / psychoeducation / meditation	n/a
VOS.Health	AppStore (5)	Breathing exercises / Affirmation / Stress reduction / Relaxation	n/a
MindDoc	Google Play (2)	Thought and emotion diary	Kerber et al. (2023)
MindHealth	Google Play (3)	Psychological diagnosis / Thought journal / Working with beliefs / Dream analysis / Psychoeducation	n/a
voidpet	Google Play (4)	Thought diary / Psychoeducation	n/a

One of the key functions of a registration system should be a publicly accessible search engine which allows prospective users to check whether a given intervention has been registered as a medical device, as in the German DiGA (Digitale Gesundheitsanwendungen; https://diga.bfarm.de/de) system. Presence in such a catalogue allows for users to be reimbursed, which could potentially encourage developers to validate their products and facilitate commercialisation (Schlieter et al., 2024). Unfortunately, the Polish system does not provide such a search function, and finding information regarding a specific application (unless provided by the developer) is virtually impossible. Some developers may state that their intervention is being developed 'as a medical device', however do not specify whether the intervention is in the process of being tested, registered, or whether registration has already been completed. According to European Union regulations [Regulation (EU) 2024/1860], from 2026, all devices (including internet interventions as medical devices) are to be registered and made publicly available for search in the EURAMED (European Database on Medical Devices) system.

A good illustration of the limited availability of information regarding the effectiveness of applications based on scientific evidence comes from the results of a study conducted on a group of nearly 200 certified psychotherapists working in Poland. Approximately 80% of them declared that, based on their current knowledge, they would recommend an application to a patient if they had tested it themselves beforehand (Kornacka et al., 2025). However, when asked what information they would use in ideal conditions, these same therapists reported that they would prefer to rely on recommendations from scientific societies (e.g. Polskiego Towarzystwa Psychologicznego (PTP) (EN: Polish Psychological Association), associations of certified psychotherapists (36%), public institutions (Narodowy Fundusz Zdrowia [NFZ] – EN: National Health Service), Ministerstwa Zdrowia [MZ] – EN: Ministry for Health) (29%), available scientific evidence (23%), and recommendations from authorities (12%).

The Specifics of Creating, Evaluating the Effectiveness of, and Implementing Online Interventions

Research suggests that the acceptability of internet interventions among patients (i.e. the extent to which they consider a given technology to be useful, easy to use, or suited to their health needs) is generally good (Lipschitz et al., 2019). However, one of the main obstacles to their implementation is high dropout (Torous et al., 2020). Therefore, it is extremely important to consider factors specific to digital solutions when evaluating the effectiveness of internet interventions, such as digital literacy, including e-Health related skills but also economic constraints and negative perceptions of the integrity and effectiveness of online interventions (Barnes & Prescott, 2025; Ganapathy et al., 2021; Hilty et al., 2021; Jacob et al., 2020; Kuek & Hakkenes, 2020). Little is also known about how acceptability translates into implementation and the effectiveness of interventions (Lukka et al., 2025).

Participatory Co-Design

One of the key elements in the development of internet interventions, which may at least partially reduce issues concerning their acceptability, is co-designing with experts by experience (patients and specialists) at the stage of designing and evaluating the effectiveness of interventions (Duffy et al., 2025; Peters et al., 2024; Sumner et al., 2024). Recommendations in this area relate in particular to the use of user-centred design and UX methods and the formulation of clear standards which describe best-practices for co-design in the field of mental health (Peters et al., 2024; Torous et al., 2019).

The Digital Therapeutic Alliance

An area which has been insufficiently researched in the context of internet interventions is the therapeutic alliance (Flückiger et al., 2018; Henson et al., 2019). The digital therapeutic alliance refers to the cooperation and emotional bond between the user and an artificial-intelligence (AI)-based tool (Malouin-Lachance et al., 2025). Mental health applications can act as 'agents of change' (Bordin, 1979; Tong et al., 2022) and users may form a relationship with them which increases intervention engagement (Berry et al., 2018; Clarke et al., 2016; Goldberg et al., 2022; Tong et al., 2023). Users may also feel more comfortable interacting with technology than with a specialist (Clarke et al., 2016). Research on chatbots confirms the possibility that an emotional bond can be established which influences the effectiveness of an intervention (Darcy et al., 2021; Prochaska et al., 2021). In online interventions, including those which utilise solely text-based communication, the therapeutic relationship is assessed in a similar manner to in-person therapy (Berger, 2017; Pihlaja et al., 2018; van Lotringen et al., 2021). In the app-supported therapy model, technology may act as a 'third entity' in the therapeutic relationship (Haber et al., 2024).

Specifically regarding chatbots, Grodniewicz and Hohol (2023) distinguish between three different relationship design strategies: deflation, mimicry, and emulation. Deflation assumes that no need to develop a relationship exists, for example in interventions relying on written communication which reduce stress despite the lack of any bond with the facilitator (Allen et al., 2020). Mimicry involves the imitation of human social cues, as in the case of Woebot (Darcy et al., 2021). Generative AI enables more natural and personalised dialogues, however raises concerns about the lack of control over generated content and the risk of excessive attachment (Laestadius et al., 2024; Siddals et al., 2024). The emulation strategy, which replicates the mechanisms of a therapeutic relationship remains a prospect for the future (Malinowska, 2021).

Further research concerning the therapeutic alliance in internet interventions and the development of relationship strengthening elements are among some of the key challenges in the field of digital mental health (D'Alfonso et al., 2020).

Summary and Recommendations

Internet interventions are one response to a key challenge in contemporary healthcare, namely limited access to mental health services. Three decades of research confirms that these solutions can be effective and scalable, enabling a wider audience to be reached at potentially lower cost. At the same time, this remains a young area of research and practice in which a serious problem can be observed: many commercially developed solutions can be developed without any basis in theoretical models and without scientific research results. Due to the dynamic development of new technologies, especially AI, it can be predicted that internet interventions will undergo significant changes in the coming years, both in terms of form and quality, as well as the methods employed to examine their effectiveness.

The TEQUILA recommendations (Löchner et al., 2025) summarise the most important aspects which should be taken into account when assessing the effectiveness of internet interventions: (1) trust – data and usage security but also transparency in the use of solutions based on emerging technologies, in particular AI; (2) evidence – the use of best practices for examining the effectiveness of internet interventions and examining the results; (3) quality – continuous evaluation of the effectiveness of interventions in parallel with technological development; (4) usability – accessibility, in particular for people with low digital skills; (5) interest – prioritising the interests of users over other stakeholder groups; (6) liability – regulating the legal aspects of internet interventions; and (7) accreditation – appropriate accreditation/registration systems for interventions with scientifically proven effectiveness. The authors of the Marburg Declaration – a group of renowned experts researching the effectiveness of psychotherapy – emphasise that training for specialists and patients in digital competencies related to mental health is also an essential element in the development of internet interventions (Rief et al., 2024).

Seiferth and colleagues (2023) developed a consensus through the production of a set of recommendations for practitioners and researchers involved in digital solutions in the field of mental health. According to this approach, in advance of developing a new online psychological intervention and planning a research study, a key question must be addressed: is using digital technologies an adequate solution for the research problem being assessed? If the answer to this question is yes, then the following steps should include: (1) how the objectives, theoretical framework and hypotheses can be defined; (2) how the target group for the intervention and its implementation method can be defined (e.g. via co-design); (3) how the nature and scope of the intervention can be determined, including the amount of support provided by psychotherapists or other specialists, which is closely related to (4) how the platform through which the intervention will be provided can be identified; (5) how the intervention content can be developed through utilising appropriate psychological and psychotherapeutic techniques (which are also tailored to the objectives of the intervention and target audience) and based on current scientific evidence and best practices; (6) how the technical solution can be created and how psychological content may be transferred to a digital format; (7) how data transfer, storage, access, and

transparency can be achieved; (8) how a risk-management and attrition prevention strategy can be developed; (9) how an appropriate research design can be determined to verify the intervention's effectiveness.

The optimal approach involves the collaboration of an interdisciplinary team which includes specialists in mental health, information technology, and human-computer interaction. Each of these groups will contribute recommendations to the work which are based on their own practice (Kopeć et al., 2021; Slovak & Munson, 2024) and ethical standards (Hall et al., 2024).

With regard to the regulation of internet interventions, the current recommendation is to create a dynamic and tiered evaluation and registration system which allows evidence-based interventions to compete with 'lifestyle applications' while maintaining focus on user-safety and intervention effectiveness (Tarricone et al., 2022). Additionally, researchers highlight the need to evaluate the effectiveness of existing interventions which are already publicly available on the market (Cheah et al., 2024; Tarricone et al., 2022).

Because of the current lack of regulations, we determined to formulate a number of additional recommendations concerning the use of internet interventions in Poland. These are not intended to replace any centralised evaluation and registration system, the creation or adaptation of which is essential to ensure the safety and effectiveness of internet interventions. We hope, however, that the following recommendation will support users with accessing reliable information about the effectiveness of internet interventions given the current conditions:

1) Increased transparency: developers of online interventions should clearly provide information about the authors, theoretical basis, research carried out, and the results thereof. In the case of interventions which have been created as medical devices, the definition of this should be clearly explained and at what stage of development of registration the intervention is currently at.
2) The involvement of scientific societies: we recommend that organisations from industry actively communicate the need to evaluate the effectiveness of internet interventions, define the criteria for being considered evidence-based, and make available lists of recommended interventions.
3) Public support for the development of interventions: The development of internet interventions in the field of mental health should not be left solely as the responsibility of commercial parties if the quality of scientific evidence is to be ensured. Although internet interventions may be cost-effective from a healthcare system perspective, their early-stage development should be supported by institutions responsible for the protection of mental health.

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