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ORIGINAL RESEARCH ARTICLE

Digital Mental Health Use, Training Needs, and Attitudes Toward a Digital Navigator: A Cross-Sectional Survey of European Psychologists

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Abstract

Digital mental health is increasingly relevant to routine care, yet little is known about psychologists' technology use, where they perceive training gaps, and how they view the digital navigator, who helps patients and psychologists integrate technology into care. This cross-sectional survey examined technology use, prior and desired training, and attitudes toward the digital navigator among psychologists in Europe. Data were collected between January and June 2025. The final analytic sample comprised 883 participants from 25 countries. Data were analyzed using descriptive statistics, ordinal logistic regression, and thematic analysis. Online consultations were the most used, but the uptake of other technologies was uneven. Technology use was daily for 23.10%, while it was rare or absent among 31.93% of participants. Formal training was limited: 10.51% reported training during university and 13.97% after graduation. More than half reported insufficient skills, in implementation, technology selection, assessment, and digital therapeutic alliance. Interest in additional training was high (77.26%). Most participants received no support, yet 61.79% considered the digital navigator relevant and 57.77% could rely on such support. Digital mental health appears present, but not all technologies are equally embedded in practice. Furthermore, structural training during education or implementation support appears minimal, which might contribute to unequal adoption. The convenience sample was unevenly distributed across countries, measures were self-reported, and the cross-sectional design precludes causal inference. The digital navigator appears to be a valuable support role, but implementation will require structured training, supervision, practical support, governance, and well-defined implementation roles.

Keywords Digital mental health · Digital navigator · Professional training · Europe · Competences · Psychologists

Introduction

Digital mental health refers to the use of technology in mental health care, including assessment, support, prevention, and treatment. Over the past two decades, the field has expanded from remote consultations to interventions involving smartphone apps, virtual reality, and generative artificial intelligence, yet implementation in routine care remains uneven and underdeveloped (Smith et al., 2023; Torous et al., 2025). Evidence-based tools often fail to reach clinical settings because of clinical burden, low confidence in app selection, limited digital infrastructure, lack of training during education and insufficient user-centered design (De Witte et al., 2021; Vial et al., 2022; Wisniewski & Torous, 2020). In Europe, implementation is further complicated by heterogeneity in mental health service organization across countries (Barbui et al., 2025).

These implementation challenges are not confined to mental health services themselves. Digital inequalities among the broader population, including both patients and psychologists, also shape whether digital mental health tools can be adopted meaningfully. Access to digital technologies and digital skills are unevenly distributed across populations, a phenomenon described as the digital divide (Van Dijk, 2017). In mental health care, this means that some patients and psychologists may struggle not only to

Extended author information available on the last page of the article

use digital tools effectively, but even to access them in the first place. Professional readiness represents a further barrier on which this research will focus. Although psychologists often express interest in digital mental health tools, many lack the competencies needed to use them safely and effectively in routine practice (Bell et al., 2022; Weik et al., 2024; Woerner et al., 2022). This is unsurprising given the limited consensus on core competencies for digital practice and the apparent scarcity of formal training during psychology education (Drude & Maheu, 2023; Van Daele et al., 2022). Most training appears to occur informally or after graduation (Ruzek et al., 2024). Although opportunities remain limited, emerging evidence suggests that even brief structured training or implementation support may improve confidence and engagement with digital mental health tools (Jaso-Yim et al., 2024). Digital competence also extends beyond technical familiarity: psychologists may be expected to assess app quality, data protection, safety, and clinical appropriateness in a rapidly changing and only partly standardised market, often with little institutional guidance.

One proposed response to this implementation gap is the digital navigator, a dedicated role or function within the care team that supports patients and clinicians with technology selection, onboarding, troubleshooting, digital literacy, and interpretation of clinically relevant digital data (Wisniewski & Torous, 2020). Rather than functioning merely as an administrative buffer between patients and psychologists, the digital navigator may reduce implementation-related burden. In doing so, digital navigators may help psychologists focus more directly on clinical decision-making and the therapeutic relationship, while also supporting patients' access, confidence, engagement, and health-related self-efficacy in relation to digital tools.

Emerging evidence from real-world services suggests that this role may strengthen shared decision-making, increase engagement with digital tools, and support their clinical integration (Alon et al., 2024; Gorban, 2024). At the same time, a systematic review found substantial heterogeneity in how the role is conceptualized, including variation in training, educational background, and modes of communication with patients (Perret et al., 2023). Recent work further suggests that the value of digital navigators depends on how well they are embedded in clinical workflows and supported by clinicians themselves (Gorban et al., 2024; Freisberg et al., 2026). This indicates that digital navigators may offer meaningful implementation support, but are unlikely to be sufficient on their own. Broader issues, such as minimum standards, app-quality classification, and professional guidance, may also require input from professional organizations and regulatory bodies.

Despite the rapid expansion of digital mental health, little is known about current technology use, training needs, and attitudes toward digital navigator support among psychologists in Europe since the acute phase of the COVID-19 pandemic. During that time, many psychologists relied on online consultations, despite rarely having any formal education on the use of technology (De Witte et al., 2021). This study therefore examined (1) psychologists' use of digital technologies in practice, (2) prior and desired training in digital mental health, and (3) attitudes toward the digital navigator. By mapping psychologists' current use of digital technologies, prior and desired training, and attitudes toward the digital navigator, this study provides an exploratory overview of digital mental health implementation needs among psychologists in Europe.

Methods

Study Design

This cross-sectional study used a multilingual web-based survey to investigate (1) psychologists' use of technology, (2) perceived training needs, and (3) attitudes toward digital navigators in mental health care. Data were collected between January and June 2025 using an online questionnaire distributed in 13 languages: Danish, Dutch, English, Finnish, French, German, Hungarian, Lithuanian, Norwegian, Portuguese, Serbian, Slovenian, and Spanish.

Participants and Recruitment

Eligible participants were psychologists working in Europe, regardless of licensure status, to account for heterogeneity in professional education and national legislation across countries. Recruitment occurred through convenience sampling on for example social media (e.g., the LinkedIn of the research teams) and newsletters distributed by the European Federation of Psychologists' Associations (EFPA) and national psychological associations and partner organizations. Participation was voluntary, and no incentives were provided. The disseminated survey was designed and hosted using QuestionPro survey software.

Survey Instrument

A study-specific 29-item survey was developed based on the research aims. It included both closed- and open-ended questions organized into four sections: (1) technology use, (2) education and training, (3) attitudes toward digital navigators, and (4) demographics. The survey was developed in English and translated using forward-back translation to support linguistic accuracy and conceptual equivalence. The English version is included in Appendix A, and translated

versions are available through the OSF repository (https://osf.io/xaz7b).

Technology Use

Participants indicated which technologies they had used in practice, including: "Online consultations", "Chat or text-based therapy", "Digital interventions (e.g., websites, apps)", "Immersive technologies (e.g., virtual reality, augmented reality)", "Wearables (e.g., Fitbit, Apple Watch, Oura ring)", "Artificial intelligence (AI)-based chatbots", "Artificial Intelligence – other tools", "Other" and "None of the above". The general frequency of technology use was assessed using a 5-point Likert scale ranging from 1 ("Never") to 5 ("Very often"). Respondents who reported rare or no use could explain their reasons in an open-ended question.

Education and Training

Participants reported whether they had received training in digital mental health during university education and/or after graduation (yes/no). If applicable, they described the type of training received in an open-ended response. Perceived lack of skills was assessed through a dichotomous question ("Do you feel like you are currently lacking skills concerning digital mental health?"), followed by an open-ended question inviting elaboration. The perceived importance and interest in further training were measured on a 7-point Likert scale. Participants expressing interest reported their preferred training format (in-person, online, or blended learning).

Digital Navigator

To assess attitudes toward digital navigators, participants were presented a definition, adapted from Perret et al. (2023): "*A digital navigator is a member of a mental healthcare team dedicated to assisting both patients and psychologists with the integration of technology*, *whose duties can include facilitating access to technology*, *teaching digital literacy skills*, *supporting online consultations*, *recommending technological solutions*, *troubleshooting technical issues*, *and interpreting clinically relevant data sourced from these technologies.*". Participants then indicated whether they currently receive digital support in their practice (Yes/no), followed by an open-ended question specifying the type of support when applicable. The perceived relevance of digital navigators in mental health care was rated on a 7-point Likert scale. Participants also reported their willingness to rely on a digital navigator or to become one themselves (yes/no), followed open-ended explanations.

Demographic Information

Demographic and professional variables included country, licensure status, age, gender, years of professional experience, workplace, academic degree, and an optional final comment.

Data Analysis

Quantitative data were analyzed using descriptive statistics in IBM SPSS Statistics (Version 31.0.0.0; IBM Corp, 2024). Because participants could skip questions, valid sample sizes (*n*) varied across questions. Ordinal logistic regressions were conducted to examine whether age and years of professional experience were associated with frequency of technology use and perceived importance of digital mental health training. The proportional odds assumption was met in all four separate models.

Open-ended responses were translated into English using Microsoft Word for Microsoft 365 Version 2509 (Microsoft Corporation, 2024) and manually checked against the original responses by researchers familiar with the relevant languages. The responses were then analyzed thematically by 2 researchers (FB and NDW) to identify recurring patterns related to barriers, perceived needs, and attitudes toward technology and digital navigators.

Ethical Considerations

The study protocol was approved by the Ethics Committee of the Department of Applied Psychology, Thomas More University of Applied Sciences (Antwerp, Belgium; ECTP2425_05). All participants provided electronic informed consent. Participation was anonymous, and data were handled in accordance with the General Data Protection Regulation.

Findings

Demographic Information

A total of 1036 individuals initiated the questionnaire. Four respondents were excluded because they practiced outside Europe, and 149 were excluded because they responded only to the first question. The final analytic sample, therefore comprised 883 participants (available at https://osf.io/xaz7b). Because item nonresponse was possible, sample sizes (N) varied across analyses, from 705 to 883. Below only percentages were reported for the ease of reading. 75.10% of the participants completed all technology- and training-related questions, while 67.00% completed all questions.

Information on country of practice was provided by 705 participants. According to the United Nations M49 geographic classification, participants were unevenly distributed across Europe: 12.20% from Northern, 39.86% from Western, 41.13% from Southern, and 6.81% from Eastern Europe. Appendix B details the distribution across 25 countries. The largest subsamples were from Switzerland ($n=215$), Spain ($n=134$), and Slovenia ($n=103$). Some other countries are only represented by a couple of individuals.

Participants' mean age was 46.40 years ($SD=11.86$, range = 24–78, $N=742$). Most identified as women (77.45%), followed by men (21.48%), and nonbinary or other (1.06%). Most held a master's degree (72.95%), while 17.81% held a PhD, and 9.23% a bachelor's degree. Mean professional experience was 17.98 years ($SD=11.12$, *range* = 0–51). Nearly half worked in private practice (46.31%), with other settings reported in Table 1; "other" responses included education, human resources, work psychology, and social work. Most participants were licensed in their country (86.82%); 11.72% reported that no licensing system existed in their country.

Technology Use

Figure 1 presents the percentages of participants who reported using these types of technologies at least once in practice. Online consultations were the most reported technology, with 76.44% of the 883 participants. Notably, 29.67% reported using AI-based technologies. Overall, 11.10% of the participants indicated that they had never used any of the listed technologies.

A small subset of respondents provided additional open-ended examples of technology use not covered by the predefined options ($n=20$). These responses included the use of telephone consultations, (neuro)training or bio/neurofeedback systems, digital testing and process-monitoring tools, digital notes or recordings (e.g., via tablets or iPads), podcasts and video games.

Regarding general frequency of use, 23.10% reported using digital technologies daily, 28.65% weekly, 16.31% monthly, 24.12% rarely, and 7.81% never. A small number of respondents ($n=4$) who used technology infrequently cited preference for in-person care or limited workplace access to digital tools. Ordinal logistic regression analyses indicated that neither age nor years of professional experience were significantly associated with the frequency of technology use. Age was not a significant predictor, $\chi^2(1)=0.13$, $p=.720$, $b=0.002$, $SE=0.006$, *95% CI* [−0.009, 0.013], neither was years of professional experience, $\chi^2(1)=0.42$, $p=.518$, $b=0.004$, $SE=0.006$, *95% CI* [−0.008, 0.015].

Education and Training

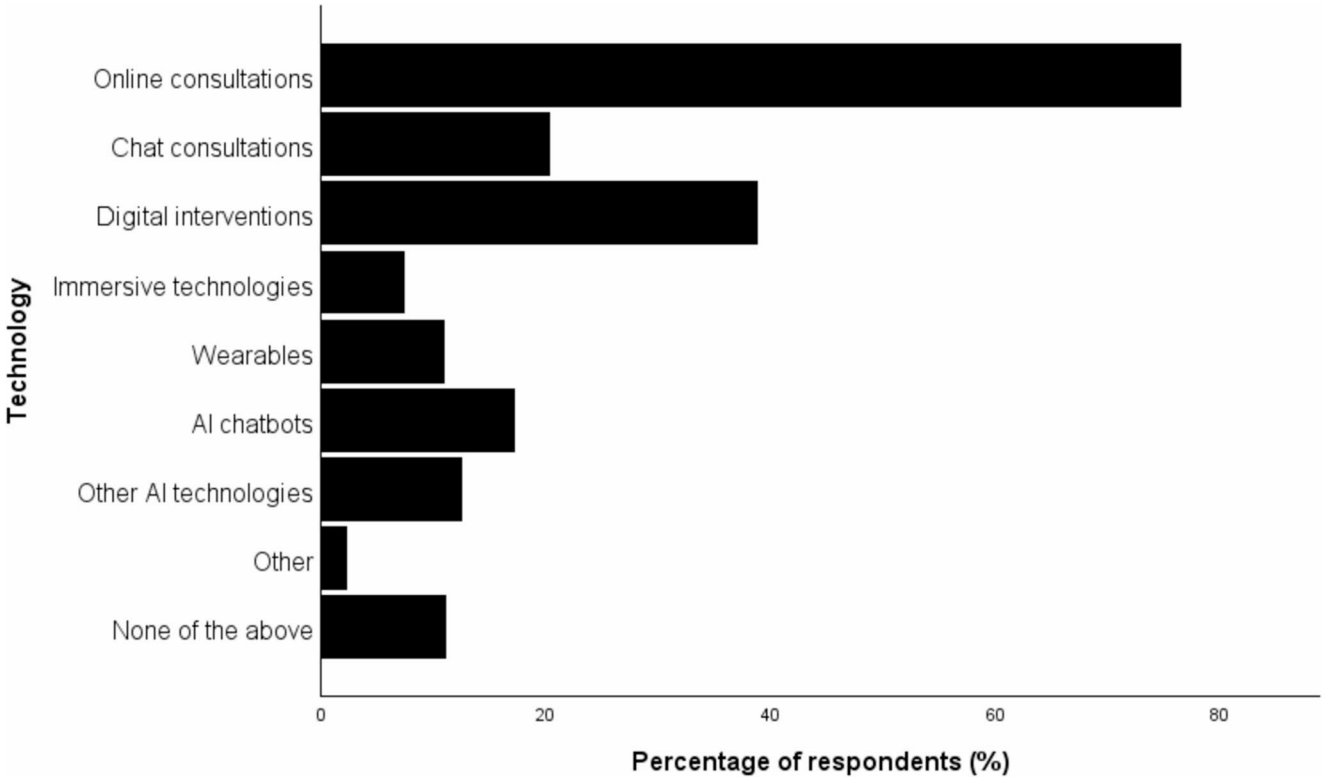
Among the 837 respondents, only 10.51% reported having received training in digital mental health during university education. Training experiences were highly heterogeneous, ranging from dedicated courses to brief coverage within regular curricula. A further 13.97% ($N=816$) reported postgraduate training, provided by institutions, professional associations, universities, technology providers, or in-house programs. Participants also reported self-directed learning, online courses, workshops, and conference presentations. The reported training duration ranged from 2 to 160 h.

More than half of the respondents (55.27%, $N=816$) reported lacking sufficient digital mental health skills. Frequently mentioned gaps concerned (a) implementation of technology in care, (b) selecting appropriate tools, (c) evaluating app quality and security, (d) using specific technologies such as AI or VR, (e) building therapeutic alliance online and written communication, (f) working with vulnerable populations in digital contexts, and (g) using technology for specific clinical or administrative purposes.

Most respondents (66.50% of 815) rated digital mental health training as important, selecting the response categories important (41.47%), very important (19.37%), or extremely important (5.64%). Neutral ratings were reported by 17.42%, while 16.07% considered it unimportant to some degree. Ordinal logistic regression analyses indicated that both age and years of professional experience were small but statistically significant negative predictors of perceived importance. Higher age ($\chi^2(1)=4.69$, $p=.030$, $b=$

Table 1 Main workplace setting of participants ($n=758$). Distribution of participants across primary workplace settings, shown as frequencies and percentages

Main Workplace Setting	*n*	%
Private practice	351	46.31
Public healthcare organization	168	22.16
Public mental healthcare organization	81	10.68
Private mental healthcare organization	34	4.48
Private healthcare organization	31	4.10
University	24	3.16
Other	69	9.10
Total	758	100



Note. As participants could indicate multiple technologies, the sum of the percentages is more than 100.

Fig. 1 Percentage of participants reporting use of digital technologies at least once in practice

−0.012, *SE* = 0.006, *95% CI* [−0.023, −0.001]) and more professional experience ($\chi^2(1) = 4.85$, $p = .028$, $b = -0.013$, *SE* = 0.006, *95% CI* [−0.025, −0.001]) were associated with slightly lower importance ratings, although effect sizes were very small.

Furthermore, 77.26% (*N* = 809) indicated interest in additional training in digital mental health. Among those who reported a preferred format, most favored online training (57.14%, *N* = 623), followed by blended formats (35.63%), while 7.22% preferred exclusively in-person training.

Digital Navigator

Most participants reported never having received support when using technology in their professional practice (89.44%, *N* = 805). When support was mentioned, it most often came from other departments or external providers (e.g., IT services), colleagues or peer consultations, or supervision. Support primarily addressed technical issues, but also included content-related assistance.

Of the 772 respondents, most considered a digital navigator role to be relevant in mental health care: 31.22% rated it as slightly relevant, 26.30% as very relevant, and 4.27% as extremely relevant. In contrast, 20.10% were neutral and 18.13% regarded it as irrelevant to varying degrees. Overall, 61.79% perceived the digital navigator role as relevant or highly relevant.

Of the 746 participants who responded, 57.77% reported that they could see themselves relying on a digital navigator, while 42.23% could not. Those willing to rely on a digital navigator most frequently associate the role with support in the provision of mental health care, particularly clinical support and consultancy. Additionally, they highlighted training and the navigator's expertise (e.g., apps, documentation) as key benefits. Other perceived added value included staying up to date with new innovations and improving efficiency, technical processes, access to care, and ethical and privacy practices.

Among participants who reported that they would not rely on a digital navigator, the most common reasons were a preference for face-to-face interventions, perceived sufficiency of their own digital skills, and a lack of perceived relevance of the role. Some participants reported insufficient knowledge to judge the usefulness of the function or expressed conditional interest if certain requirements were met. Less frequently, respondents cited high caseload complexity,

limited resources, or privacy concerns. Notably, several respondents referred to an AI-based navigation tool rather than a team-based digital navigator as defined in the questionnaire; these responses were excluded from the analysis.

A related item assessed participants' willingness to undertake training to become a digital navigator. Of the 733 respondents, 34.65% indicated that they would consider such training, while 65.35% would not. Those interested cited skill development, supporting colleagues and services, and improving patient care as primary motivations; some also expressed general interest in digitalization, its future relevance, or potential gains in efficiency and processes. In contrast, those not interested most frequently mentioned low interest or skepticism toward the role, limited time or competing priorities (e.g., workload or nearing retirement), and a preference for face-to-face practice. A smaller subgroup reported lacking the necessary capacity or knowledge, while a few indicated that they already possessed sufficient skills and preferred professional autonomy.

Discussion

This study examined the use of digital technologies, training experiences and needs, and attitudes toward digital navigators among psychologists working across Europe. Three findings stand out. First, although most respondents had used online consultations and over half used technology at least weekly, nearly one third reported rare or no use, suggesting uneven integration of digital tools into routine care. Notably, neither age nor professional experience were associated with frequency of use. Second, formal education in digital mental health was uncommon, and more than half of respondents reported lacking relevant skills, pointing to structural training gaps. Third, most participants viewed the digital navigator role as relevant and could imagine relying on such support, while about one third would consider becoming one themselves. Taken together, these findings suggest growing exposure to digital mental health alongside inconsistent implementation and limited support structures.

Technology Use is Present, but Uneven

Digital tools have primarily entered routine practice through established modalities, particularly online consultations, while uptake of other technologies (e.g., wearables or immersive tools) remains limited. This pattern suggests that adoption is highest for tools that directly enable service delivery, consistent with prior surveys conducted during and after the COVID-19 pandemic (Feijt et al., 2023). Nearly 30% of respondents also reported using AI-related tools, indicating rapid uptake, although the present data do not allow conclusions regarding clinical purpose or quality. Previous research suggests that clinicians often perceive such tools as potentially helpful and timesaving, while simultaneously expressing ethical and practical concerns (Cross et al., 2024).

Almost one third of respondents reported using technology rarely or never, indicating that digital mental health is not yet routinely embedded across this sample of psychologists. However, over half of the participants used it at least weekly, and lower uptake should not automatically be interpreted as resistance. Prior research highlights multiple implementation barriers, including skill gaps, organizational constraints, and legal or administrative challenges (Borghouts et al., 2021; De Witte et al., 2021; Schröder et al., 2017; Tully et al., 2021).

Training Gaps are Structural

Only a minority of respondents reported receiving training in digital mental health during university education, with slightly higher but still modest rates of postgraduate training. This aligns with earlier findings indicating that digital competencies are not yet systematically embedded in psychology education (De Witte et al., 2021; Pote et al., 2021). In parallel, more than half of respondents reported lacking sufficient skills. The lacking competencies identified, in open-ended responses are not peripheral: building a therapeutic alliance online, managing risk remotely, and evaluating app quality and data security, are central to ethical and effective practice and are emphasized in professional guidelines (American Psychological Association, 2024).

These findings suggest that digital competence extends beyond technical familiarity to include ethical judgment, clinical decision-making, and contextual evaluation. Expecting individual psychologists to independently assess the growing range of digital tools is unrealistic. More structured guidance, shared evaluative frameworks, and policy support may therefore be needed, as illustrated by initiatives such as Germany's DiGA framework (Schmidt et al., 2024) and the Flemish assessment framework (Buelens et al., 2026).

Interest in further training reinforces the presence of a training gap: two thirds of respondents rated digital mental health training as important, and more than three quarters expressed interest in further education, most commonly in online formats. While scalable, online training alone may be insufficient given workload pressures and heterogeneous skill levels, suggesting a need for blended and role-sensitive approaches.

Digital Navigators as Implementation Support

Most participants reported receiving no support when using technology, yet a majority considered the digital navigator role relevant. This combination suggests an unmet need for

implementation support, in line with previous work (Wisniewski & Torous, 2020). However, the value of the role likely depends on how clearly it is defined and how well it is embedded in routine workflows (Freisberg et al., 2026).

Although one third of respondents would consider becoming a digital navigator, doing so would require protected time, incentives, training, and formal recognition. Concerns regarding confidentiality, competence, and trust highlight necessary conditions for acceptability, including robust information governance and supervision. Moreover, some responsibilities, such as evaluating or classifying digital tools, may be more appropriately handled at organizational or regulatory levels (e.g., curated app repositories), rather than delegated to individual psychologists or local roles (Lagan et al., 2021; Torous et al., 2019; Van Assche et al., 2024).

Strengths and Limitations

This study has two main strengths. First, it combined quantitative data with limited but meaningful qualitative responses, allowing not only description of patterns in training, skills, and attitudes, but also insight into the specific competencies and concerns participants identified as important. Second, the inclusion of psychologists from multiple countries, work settings, and career stages provided a broader perspective on current practices and training needs than a single-site sample.

Several limitations should be considered. Recruitment via online newsletters and social media resulted in a convenience sample with unknown representativeness; interest in and access to technology, as well as reliance on digital recruitment may have inflated estimates of technology use and training interest, despite a substantial subgroup reporting no technology use. From an equity, diversity, and inclusion perspective, this recruitment strategy may have reduced participation among psychologists with lower digital engagement, fewer institutional resources, or less access to professional networks. The uneven country distribution, with concentrations in a few settings, limits generalizability and weakens cross-national comparisons, particularly for psychologists working in underrepresented countries or less-resourced mental health systems. Including psychologists regardless of licensure status or existence of licensing systems in their country increased heterogeneity and may reflect differences not only in digital readiness but also in national training and regulatory contexts. Some participants appeared to misunderstand the digital navigator as an AI tool rather than a human role; when identifiable, these responses were excluded, highlighting the need for clearer definitions in future research. Conceptual clarity of other terms (e.g., online consultations, wearables) may also have varied. Finally, all measures relied on self-report; technology use was assessed broadly, and substantial item-level missingness may have introduced systematic bias (e.g., lower engagement among less interested participants). In addition, the study did not assess several variables that may shape digital mental health use and attitudes toward digital navigator support, such as digital infrastructure, organizational support, workload, reimbursement structures, patient population, or prior experience with specific tools. The findings should therefore be interpreted as descriptive and exploratory rather than as evidence of the determinants of digital mental health adoption.

Implications

The findings have several implications for research, training, and practice. First, digital mental health should no longer be considered an optional competence. Reported gaps in training and self-perceived skills highlight the need for more systematic integration of digital mental health into psychology curricula, postgraduate training, and continuing professional development. Training should go beyond technical skills to include clinically relevant competencies, such as building an online therapeutic alliance, managing risk remotely, and critically evaluating app quality, privacy, data security, and ethical implications.

Second, responsible implementation is unlikely to succeed through clinician motivation alone. Psychologists should not be expected to independently assess the quality, safety, and evidence base of digital tools. Promising initiatives include the European Commission's digital health and care initiatives focused on international cooperation, as well as WHO Europe's two-year progress report on accelerating digital health transformation in Europe (European Commission, n.d.; WHO Regional Office for Europe, 2024). Still, practical guidance such as concrete quality criteria, curated app repositories, and other forms of guidance will still be required. Professional psychology associations could play an important role, in close collaboration with policy makers, to offer such much needed, structured support.

Third, although the digital navigator appears relevant for current implementation challenges, future developments may require clearer distinctions between navigation and support roles and broader human oversight responsibilities. As AI-enabled systems become more embedded in care pathways, issues of supervision, accountability, risk management, and governance may increasingly extend beyond implementation support alone.

Fourth, the reported lack of support combined with the perceived relevance of digital navigators suggests that services may benefit from dedicated implementation support for

technology selection, onboarding, troubleshooting, and sustained integration. However, digital navigation should complement rather than replace broader professional governance.

Finally, variation in participants' willingness to take on this role indicates that digital navigation would likely require protected time, formal recognition, and specific training, rather than being added informally to existing workloads. More broadly, successful implementation will depend not only on access to technology, but also on clear role definitions, robust information governance, and effective integration into routine clinical workflows.

Future Research

Future research should focus on specifying and testing implementation strategies that address both competency gaps and service-level constraints. This includes developing and evaluating modular training aligned with core competencies (e.g., online alliance-building, risk management, and evaluation of app quality and data security). Wherever possible, evaluation should extend beyond self-report and incorporate country-specific testing approaches. In addition, the digital navigator role should be operationalized with clear responsibilities, boundaries, and governance, and evaluated in real-world services to assess feasibility, acceptability, and equity across European contexts. Comparative research would also benefit from explicitly considering regulatory contexts and exploring the role of professional psychology organizations in providing app-quality frameworks, curated repositories, or other collective guidance.

Conclusion

Overall, the findings indicate that digital technologies are already part of psychological practice in this multinational European sample, but their use remains uneven and concentrated mainly around more established modalities such as online consultations. Participants reported limited formal preparation for digital mental health, substantial perceived skill gaps, and strong interest in additional training, suggesting that digital competence should be addressed more systematically in psychology education, postgraduate training, and continuing professional development.

The findings also indicate that most psychologists receive little practical support when using technology, which helps explain why they view the digital navigator as a form of implementation support. However, reservations about the role suggest that successful implementation will require clear role definitions, robust confidentiality and governance arrangements, dedicated organizational support, and stronger collective guidance so that psychologists are not left to navigate an expanding digital market alone. Taken together, these findings suggest that the future integration of digital mental health in psychological practice will depend not only on psychologists' willingness to use digital tools, but also on structured training, supervision, practical support, governance, and well-defined implementation roles and recognitions such as the digital navigator.

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Author Contributions All authors contributed to the study conception and design. Material preparation and data collection were performed by TVD. Quantitative analysis was done by FB. Qualitative analysis was done by FB and NDW. A first draft of the manuscript was written by FB and TVD to which all other authors provided comments. All authors read and approved the final manuscript.

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Data Availability The quantitative data from this study are available in the Open Science Framework repository at https://osf.io/xaz7b. Qualitative data (both in original languages, as well an English translation) are available upon request.

Declarations

Ethical Approval This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of the Department of Applied Psychology, Thomas More University of Applied Sciences (Antwerp, Belgium; ECTP2425_05)

Informed Consent All participants provided informed consent prior to participation. The manuscript does not include identifiable individual participant data or any images or videos that could compromise participant anonymity.

Clinical Trial Number Not applicable.

Author Area of Interest Digital mental health, Professional training, Implementation, Competences of psychologists.

Conflict of interest The authors have no relevant financial or non-financial interests to disclose, except for LL, who is a shareholder, employee, and member of the board of directors of Soihtu DTx, a company that develops digital therapeutics.

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References

Alon, N., Perret, S., Cohen, A., Partiquin, M., LeMelle, S., Boyd, C., Aguilera, J., Reat, C., Hough, E., Walsh, J., Dwyer, B., Hogan, J., Smith, A. H., & Torous, J. (2024). Digital Navigator Training to Increase Access to Mental Health Care in Community-Based Organizations. *Psychiatric Services*, *75*(6), 608–611. https://doi.org/10.1176/appi.ps.20230391

American Psychological Association (2024). *Proposed Revision of Guidelines for the Practice of Telepsychology.* https://www.apa.org/practice/guidelines/telepsychology-revisions.pdf

Barbui, C., Alonso, J., Chisholm, D., Evans-Lacko, S., Keynejad, R. C., Lazeri, L., Miah, N., Valuckiene, Z., & Gastaldon, C. (2025). Mental health service coverage and gaps among adults in Europe: A systematic review. *The Lancet Regional Health - Europe*, *57*, 101458. https://doi.org/10.1016/j.lanepe.2025.101458

Bell, I. H., Thompson, A., Valentine, L., Adams, S., Alvarez-Jimenez, M., & Nicholas, J. (2022). Ownership, Use of, and Interest in Digital Mental Health Technologies Among Clinicians and Young People Across a Spectrum of Clinical Care Needs: Cross-sectional Survey. *JMIR Mental Health*, *9*(5), e30716. https://doi.org/10.2196/30716

Borghouts, J., Eikey, E., Mark, G., De Leon, C., Schueller, S. M., Schneider, M., Stadnick, N., Zheng, K., Mukamel, D., & Sorkin, D. H. (2021). Barriers to and facilitators of user engagement with digital mental health interventions: Systematic review. *Journal of Medical Internet Research, 23*(3), Article e24387. https://doi.org/10.2196/24387

Buelens, F., Seymoens, T., Verplancke, J., & Van Daele, T. (2026). Development of a Contextualized, Research-Based Flemish Assessment Framework for Digital Care, Assistance, and Support: Delphi Study. *JMIR Formative Research*, *10*, e88512. https://doi.org/10.2196/88512

Cross, S., Bell, I., Nicholas, J., Valentine, L., Mangelsdorf, S., Baker, S., Titov, N., & Alvarez-Jimenez, M. (2024). Use of AI in Mental Health Care: Community and Mental Health Professionals Survey. *JMIR Mental Health*, *11*, e60589–e60589. https://doi.org/10.2196/60589

De Witte, N. A., Carlbring, P., Etzelmueller, A., Nordgreen, T., Karekla, M., Haddouk, L., Belmont, A., Øverland, S., Abi-Habib, R., Bernaerts, S., Brugnera, A., Compare, A., Duque, A., Ebert, D. D., Eimontas, J., Kassianos, A. P., Salgado, J., Schwerdtfeger, A., Tohme, P., & Van Daele, T. (2021). Online consultations in mental healthcare during the COVID-19 outbreak: An international survey study on professionals' motivations and perceived barriers. *Internet Interventions*, *25*, 100405. https://doi.org/10.1016/j.invent.2021.100405

Drude, K. P., & Maheu, M. M. (2023). The Need for Interprofessional Consensus about Telebehavioral Health Competencies and Education. *Journal of Technology in Behavioral Science*, *9*(1), 7–13. https://doi.org/10.1007/s41347-023-00369-4

European Commission. (n.d.). *Digital health and care: International cooperation*. European Commission, Directorate-General for Health and Food Safety. https://health.ec.europa.eu/ehealth-digital-health-and-care/international-cooperation_en

Feijt, M., de Kort, Y., Westerink, J., Bierbooms, J., Bongers, I., & IJsselsteijn, W. (2023). Integrating technology in mental healthcare practice: A repeated cross-sectional survey study on professionals' adoption of digital mental health before and during COVID-19. *Frontiers in Psychiatry*. https://doi.org/10.3389/fpsyt.2022.1040023

Freisberg, L., Eva, M. D., Heinze, M., Schönbeck, J., Schubert, D., Justin, S., Strudwick, G., Torous, J., & Schwarz, J. (2026). Expected competencies and personal attributes of digital health navigators to support digital mental health care: A focus group and interview study with patients and health care professionals. *JMIR Mental Health*. https://doi.org/10.2196/83073

Gorban, C. (2024). Technology may be part of the problem, but they are certainly part of the solution for youth mental health: A review of our experiences using a Digital Navigator as part of young people's care team. *Cambridge Open Engage*. https://doi.org/10.33774/coe-2024-j2pxj

Gorban, C., McKenna, S., Chong, M. K., Capon, W., Battisti, R., Crowley, A., Whitwell, B., Ottavio, A., Scott, E. M., Hickie, I. B., & Iorfino, F. (2024). Building Mutually Beneficial Collaborations Between Digital Navigators, Mental Health Professionals, and Clients: Naturalistic Observational Case Study. *JMIR Mental Health*, *11*, e58068–e58068. https://doi.org/10.2196/58068

IBM Corporation. (2024). *IBM SPSS Statistics for Windows (Version 31.0.0.0)*. IBM Corporation. [Computer software].

Jaso-Yim, B., Eyllon, M., Sah, P., Pennine, M., Welch, G., Schuler, K., Orth, L., O'Dea, H., Rogers, E., Murillo, L. H., Barnes, J. B., Hoyler, G., Peloquin, G., Jarama, K., Nordberg, S. S., & Youn, S. J. (2024). Evaluation of the impact of a digital care navigator on increasing patient registration with digital mental health interventions in routine care. *Internet Interventions*, *38*, 100777. https://doi.org/10.1016/j.invent.2024.100777

Lagan, S., Emerson, M. R., King, D., Matwin, S., Chan, S. R., Proctor, S., Tartaglia, J., Fortuna, K. L., Aquino, P., Walker, R., Dirst, M., Benson, N., Myrick, K. J., Tatro, N., Gratzer, D., & Torous, J. (2021). Mental Health App Evaluation: Updating the American Psychiatric Association's Framework Through a Stakeholder-Engaged Workshop. *Psychiatric Services*, *72*(9), 1095–1098. https://doi.org/10.1176/appi.ps.202000663

Microsoft Corporation. (2024). *Microsoft Word for Microsoft 365 (Version 2509) [Computer software]*. Microsoft Corporation.

Perret, S., Alon, N., Carpenter-Song, E., Myrick, K., Thompson, K., Li, S., Sharma, K., & Torous, J. (2023). Standardising the role of a digital navigator in behavioural health: A systematic review. *The Lancet Digital Health*, *5*(12), e925–e932. https://doi.org/10.1016/s2589-7500(23)00152-8

Pote, H., Rees, A., Holloway-Biddle, C., & Griffith, E. (2021). Workforce challenges in digital health implementation: How are clinical psychology training programmes developing digital competences? *Digital Health*. https://doi.org/10.1177/20552076209853 96

Ruzek, J. I., Sadeh-Sharvit, S., Bunge, E. L., Sheperis, D. S., Fitzsimmons-Craft, E., Guinn, V., Joseph, R., Cameron, E., & Taylor, C. B. (2024). Training the psychologist of the future in the use of digital mental health technologies. *Professional Psychology: Research and Practice*, *55*(5), 395–404. https://doi.org/10.1037/pro0000567

Schmidt, L., Pawlitzki, M., Renard, B. Y., Meuth, S. G., & Masanneck, L. (2024). The three-year evolution of Germany's digital therapeutics reimbursement program and its path forward. *NPJ Digital Medicine*. https://doi.org/10.1038/s41746-024-01137-1

Schröder, J., Berger, T., Meyer, B., Lutz, W., Hautzinger, M., Späth, C., Eichenberg, C., Klein, J. P., & Moritz, S. (2017). Attitudes

Towards Internet Interventions Among Psychotherapists and Individuals with Mild to Moderate Depression Symptoms. *Cognitive Therapy and Research*, *41*(5), 745–756. https://doi.org/10.1007/s10608-017-9850-0

Smith, K. A., Blease, C., Faurholt-Jepsen, M., Firth, J., Van Daele, T., Moreno, C., Carlbring, P., Ebner-Priemer, U. W., Koutsouleris, N., Riper, H., Mouchabac, S., Torous, J., & Cipriani, A. (2023). Digital mental health: Challenges and next steps. *BMJ Mental Health*, *26*(1), e300670. https://doi.org/10.1136/bmjment-2023-300670

Torous, J., Andersson, G., Bertagnoli, A., Christensen, H., Cuijpers, P., Firth, J., Haim, A., Hsin, H., Hollis, C., Lewis, S., Mohr, D. C., Pratap, A., Roux, S., Sherrill, J., & Arean, P. A. (2019). Towards a consensus around standards for smartphone apps and digital mental health. *World psychiatry*, *18*(1), 97–98. https://doi.org/10.1002/wps.20592

Torous, J., Linardon, J., Goldberg, S. B., Sun, S., Bell, I., Nicholas, J., Hassan, L., Hua, Y., Milton, A., & Firth, J. (2025). The evolving field of digital mental health: Current evidence and implementation issues for smartphone apps, generative artificial intelligence, and virtual reality. *World Psychiatry*, *24*(2), 156–174. https://doi.org/10.1002/wps.21299

Tully, L., Case, L., Arthurs, N., Sorensen, J., Marcin, J. P., & O'Malley, G. (2021). Barriers and Facilitators for Implementing Paediatric Telemedicine: Rapid Review of User Perspectives. *Frontiers in Pediatrics*, *9*, 630365. https://doi.org/10.3389/fped.2021.630365

Van Assche, E., Buelens, F., Mees, A., Verplancke, J., Beelen, S., & Van Daele, T. (2024). A Belgian platform for well-being and mental health apps: Exploring end users' attitudes, interaction and perceived strengths and limits. *Procedia Computer Science*, *248*, 46–51. https://doi.org/10.1016/j.procs.2024.10.362

Van Daele, T., Mathiasen, K., Carlbring, P., Bernaerts, S., Brugnera, A., Compare, A., Duque, A., Eimontas, J., Gosar, D., Haddouk, L., Karekla, M., Larsen, P., Lo Coco, G., Nordgreen, T., Salgado, J., Schwerdtfeger, A. R., Van Assche, E., & Willems, S. (2022). Online consultations in mental healthcare: Modelling determinants of use and experience based on an international survey study at the onset of the pandemic. *Internet Interventions*, *30*, 100571. https://doi.org/10.1016/j.invent.2022.100571. & De Witte, N. A. J.

Van Dijk, J. A. G. M. (2017). Digital divide: Impact of access. In P. Rössler, C. A. Hoffner, & L. van Zoonen (Eds.), *The international encyclopedia of media effects* (pp. 1–11). Wiley. https://doi.org/10.1002/9781118783764.wbieme0043

Vial, S., Boudhraâ, S., & Dumont, M. (2022). Human-Centered Design Approaches in Digital Mental Health Interventions: Exploratory Mapping Review. *JMIR Mental Health*, *9*(6), e35591. https://doi.org/10.2196/35591

Weik, L., Fehring, L., Mortsiefer, A., & Meister, S. (2024). Understanding inherent influencing factors to digital health adoption in general practices through a mixed-methods analysis. *Npj Digital Medicine*, *7*, 47. https://doi.org/10.1038/s41746-024-01049-0

Wisniewski, H., & Torous, J. (2020). Digital navigators to implement smartphone and digital tools in care. *Acta Psychiatrica Scandinavica*, *141*(4), 350–355. https://doi.org/10.1111/acps.13149

Woerner, M., Sams, N., Nales, R., Gorstein, C., Johnson, T., Mosser, M., B. A., & Areán, P. A. (2022). Generational Perspectives on Technology's Role in Mental Health Care: A Survey of Adults With Lived Mental Health Experience. *Frontiers in Digital Health*, *4*. https://doi.org/10.3389/fdgth.2022.840169

World Health Organization Regional Office for Europe (2024). *Accelerating digital health transformation in Europe: A two-year progress report*. https://www.who.int/europe/news/item/28-10-2024-accelerating-digital-health-transformation-in-europe--a-two-year-progress-report

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