Digital Transformation in Mental Healthcare: How Social Influence and Professional Role Perceptions Influence Psychology Students' Attitudes

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Abstract

As digital technologies continue to transform mental healthcare, it is vital to understand how future psychologists perceive and engage with these innovations. This study examined the extent to which social influence, professional role perception, and digital literacy predict psychology students' evaluations of digital technology, focusing on perceived ease of use (PEOU) and perceived usefulness (PU). Grounded in the Technology Acceptance Model (TAM), the Theory of Planned Behaviour (TPB), Identity theory, and digital literacy theory, a cross-sectional survey was conducted among psychology students from universities in the Netherlands and Germany ($N = 65$). Participants completed a series of validated and adapted self-report questionnaires. Reliability was assessed with Cronbach's alpha, with all scales demonstrating at least acceptable reliability, and data were analysed using multiple regression and structural equation modelling. The results revealed that professional role perception significantly predicted PEOU, and PEOU, in turn, predicted PU. However, no significant direct or indirect effects were found for social influence or digital literacy on PEOU and PU. These findings underscore the importance of perceived usability and professional identity in shaping students' openness to digital tools, while highlighting that social and technical readiness alone may not be sufficient drivers of acceptance. Implications for curriculum design, digital tool development, and future research on clinical digital literacy are discussed.

Keywords: digital mental health, psychology students, professional identity, social influence, technology acceptance, digital literacy

AI Assistance Statement

This thesis was written with the assistance of ChatGPT, an AI-based language model, and DeepL, a translation tool. ChatGPT was used primarily for editing, restructuring, and improving clarity in written sections, as well as for grammar and APA style corrections. DeepL was used to assist in translating certain passages, as English is not the author's native language. However, all content, research design, data collection, and analysis were conducted independently by the author. The AI tools did not contribute to the generation of original ideas, data interpretation, or critical analysis. The final manuscript was reviewed and approved by the author to ensure accuracy and academic integrity.

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Introduction

As technology becomes increasingly embedded across sectors of society, mental healthcare is also experiencing a digital transformation. Digital innovations—ranging from artificial intelligence–driven diagnostic systems to mobile health applications and online therapy platforms—are revolutionizing how mental health services are delivered and experienced (Buntrock, 2024). These tools can enhance the accessibility, scalability, and personalization of care, enabling mental health support to reach individuals who might otherwise be excluded due to geographical, financial, or logistical barriers (Harty et al., 2023).

In the Netherlands, digital mental health platforms such as Minddistrict and NiceDay have gained traction, offering structured interventions and communication tools to both clients and professionals (Minddistrict, n.d.; NiceDay, n.d.). The Dutch government has also actively encouraged e-health innovation, aiming to integrate digital tools as a regular component of care (Ministerie van VWS, 2022). However, despite these promising trends, the successful integration of digital tools in routine clinical practice hinges not only on the availability of technology but also on mental health professionals' willingness and readiness to adopt it (Gbollie et al., 2023; Topooco et al., 2017).

While existing research has examined attitudes of practicing clinicians toward digital mental healthcare, considerably less is known about psychology students' perspectives (Nogueira-Leite & Cruz-Correia, 2023). These students represent the next generation of mental health providers, and their attitudes will influence whether digital tools are embraced or resisted in future practice. As such, their perceptions provide important insight into potential barriers and facilitators for long-term implementation. Despite this relevance, few empirical studies have focused specifically on how psychology students view digital interventions and the factors that shape their openness toward using such tools (Özer et al., 2024).

Understanding the perceptions of psychology students requires a multifaceted approach that accounts for both social and cognitive determinants. This study draws on three theoretical perspectives to examine how students form beliefs about digital tools: the Technology Acceptance Model (TAM; Davis, 1989), the Theory of Planned Behaviour (TPB;

Ajzen, 1991), and digital literacy theory (Kontos et al., 2014), and identity theory (Ibarra, 1999; Pratt et al., 2006).

The Technology Acceptance Model (TAM) posits that two key beliefs—perceived usefulness (PU) and perceived ease of use (PEOU)—are central in determining technology adoption, and thus attitude towards adoption. PU refers to the extent to which a person believes a system will enhance their job performance, while PEOU refers to the degree to which the system is perceived as free of effort (Davis, 1989). Numerous studies across sectors, including healthcare, have validated the TAM as a robust framework for understanding technology-related behaviour (Holden & Karsh, 2010).

In the context of clinical psychology, perceived ease of use may relate to how intuitively a platform can be integrated into therapeutic sessions, while perceived usefulness could reflect whether the technology is seen as beneficial for clients' outcomes. However, TAM has been criticized for being overly focused on individual cognition and not sufficiently accounting for social and contextual influences (Venkatesh & Davis, 2000). To address this limitation, the present study incorporates two external factors—social influence and professional role perception—and considers digital literacy as a foundational skill set that may condition students' evaluations of digital tools.

From the perspective of the Theory of Planned Behaviour (TPB), social influence reflects subjective norms: the perceived expectations of others (Ajzen, 1991). In educational settings, these "others" may include lecturers, supervisors, and peers, whose endorsement or scepticism of digital tools may influence students' own beliefs about their usefulness or ease of integration. While Tondeur et al. (2016) focused on teachers' attitudes, their findings highlight how educators' beliefs and norms about technology use in education can act as perceived barriers or enablers to said technology use—factors that may indirectly shape students' acceptance of digital tools, especially in early education and career stages.

Professional role perception refers to how students internalize the responsibilities, values, and competencies associated with their future profession. Drawing from identity theory (Ibarra, 1999; Pratt et al., 2006), individuals are more likely to engage in behaviours that align with their envisioned professional identity. If students believe that being a "good psychologist" includes being digitally competent and responsive to technological innovation, they may view digital tools more favourably. Empirical research supports this notion: students who perceive digital technologies as congruent with their future role are more open to

adopting them in clinical settings (Topçu et al., 2021; Bond et al., 2018). Conversely, if digital tools are viewed as misaligned with core therapeutic values, they may be met with resistance or scepticism (Wilson et al., 2021). These perceptions may therefore critically shape the integration of technology in future psychological practice.

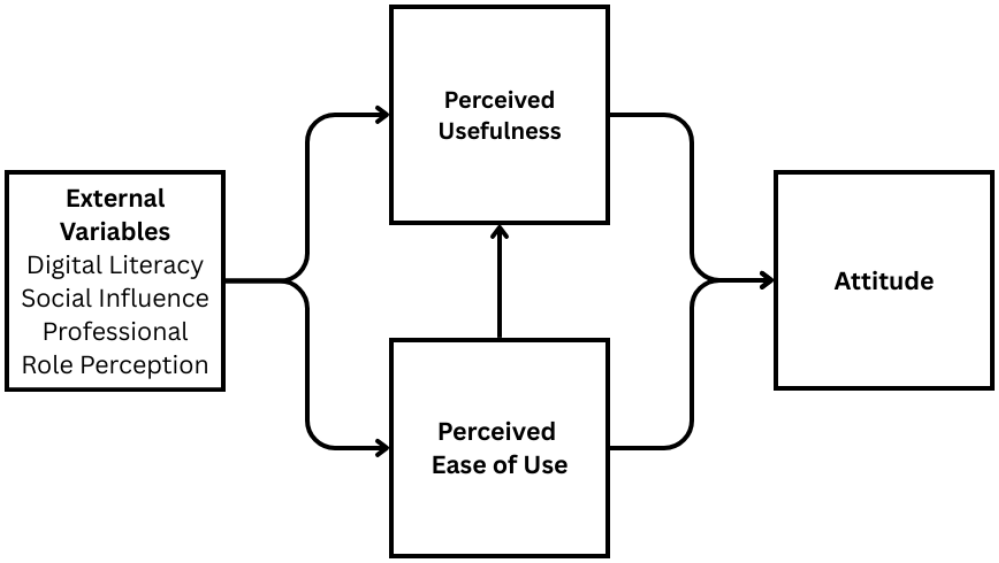
Digital literacy, finally, refers to the ability to access, evaluate, and effectively use digital information and tools (Kontos et al., 2014). It has been linked to increased confidence in using new technologies and may influence whether tools are perceived as manageable or overwhelming. Although often treated as a background variable, digital literacy may serve as a necessary condition for perceiving ease of use. Prior research has shown that higher digital literacy in students is associated with more positive attitudes toward educational technologies and greater acceptance of digital tools (Ng, 2012; Hatlevik et al., 2015). For instance, Ng (2012) found that digitally literate students were more confident and willing to use new learning technologies, while Hatlevik et al. (2015) reported that students with stronger digital skills were more likely to believe in the usefulness of digital tools in academic settings.

By integrating these frameworks, this study proposes a conceptual model in which social influence, professional role perception, and digital literacy predict PEOU, which in turn predicts PU. In addition to these indirect paths, direct effects of the external variables on PU are also tested to provide a more comprehensive understanding of how different factors influence student attitudes. Although the model includes *attitude* as a conceptual endpoint, it is not measured directly in this study. Instead, in line with previous research using the Technology Acceptance Model (Davis, 1989; Venkatesh & Bala, 2008), PU and PEOU are treated as indirect indicators of attitude toward digital technology. The resulting model is depicted in Figure 1. The design allows for the evaluation of both direct and mediated relationships, offering a nuanced view of how students' social environments, identity development, and digital skills contribute to their technology acceptance.

Figure 1

Conceptual Model of the Relationships Between External Variables and Attitude Toward

Digital Technology based on TAM-model (Davis, 1989).



Note. Digital literacy, social influence, and professional role perception influence perceived ease of use, which in turn affects perceived usefulness. All three external variables are also modelled as direct predictors of perceived usefulness.

The current study

This study addresses a gap in the current literature by focusing on students as a unique group at the intersection of training and professional identity development. It seeks to extend established theoretical models—TAM and TPB—by incorporating context-specific constructs relevant to clinical psychology and education. Ultimately, by advancing our understanding of how psychology students conceptualize and evaluate digital tools, this research contributes to the broader goal of fostering sustainable, practitioner-driven innovation in mental health care.

Understanding the factors that shape psychology students' attitudes toward digital technology in mental healthcare is essential for informing educational strategies and professional training programs. By examining the roles of social influence and professional role perception, while accounting for digital literacy, this study aims to clarify how these external factors affect students' attitudes through perceived ease of use and perceived usefulness.

Therefore, the current study examines the extent to which social influence, digital literacy, and professional role perception influence psychology students' perceptions of the ease of use and usefulness of digital technologies in mental healthcare. Drawing on the

Technology Acceptance Model and related theoretical frameworks, the study also explores how these relationships unfold through potential mediation pathways.

Based on the conceptual model presented in Figure 1, the following hypotheses were formulated:

H1: Social influence will positively predict perceived ease of use (PEOU).

H2: Professional role perception will positively predict PEOU.

H3: Digital literacy will positively predict PEOU.

H4: PEOU will positively predict perceived usefulness (PU).

H5: PEOU will mediate the relationship between social influence and PU.

H6: PEOU will mediate the relationship between professional role perception and PU.

H7: PEOU will mediate the relationship between digital literacy and PU.

H8: Social influence will directly predict PU.

H9: Professional role perception will directly predict PU.

H10: Digital literacy will directly predict PU.

Methods

Design

This study employed a quantitative, cross-sectional survey design to investigate how external variables—namely social influence, professional role perception, and digital literacy—shape psychology students' perceptions of digital technologies in mental healthcare. The study aimed to test whether these external predictors influence perceived ease of use (PEOU) and PU, and whether PEOU mediates their effects on perceived usefulness (PU), as outlined in Figure 1.

Participants

A total of 77 psychology students participated in the study. However, 12 entries were excluded from the dataset due to incomplete questionnaires. The final sample consisted of 65 psychology students from various universities in the Netherlands and Germany. Most participants (N = 54; 83%) were enrolled at the University of Twente, while others attended institutions such as Radboud University, Maastricht University, and Breda University of Applied Sciences. Selection criteria required participants to be currently enrolled in a

psychology-related bachelor's or master's program. Participants ranged in age from 18 to 54 years, with a mean age of 24.15 years (*SD* = 5.76).

Regarding gender identity, 49 participants (75.4%) identified as female, 11 participants (16.9%) as male, and 5 participants (7.7%) as non-binary or other. In terms of academic program, 55 students (84.6%) were enrolled in a psychology program, while the remaining 10 students (15.4%) were studying in related disciplines, such as communication science or behavioural sciences.

Participants represented various stages of education, with the largest proportion (40%, *N* = 26) being in their third year of a bachelor's program, followed by 1st-year master's students (28%, *N* = 18) and 2nd-year bachelor's students (19%, *N* = 12). The remaining 13% (*N* = 9) was enrolled in a psychology related master's program. This spread in academic levels allowed for capturing a wide range of perspectives on digital technology in mental healthcare.

Materials

The questionnaire included a combination of validated and self-constructed instruments designed to measure digital literacy, social influence, professional role perception, and the core TAM constructs of PU and PEOU. All items were rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Digital literacy was assessed using an 11-item adaptation of the Digital Literacy Skills Questionnaire originally developed by Choi et al. (2023; See Appendix A). The original questionnaire consisted of 18 items. Seven Items were excluded to shorten the overall questionnaire and because they measured very rudimental digital literacy skills which all students possess. The items evaluated competencies such as online communication, evaluating information, and privacy awareness. An example item is: "I can critically evaluate the reliability of online information." The scale demonstrated good internal consistency (Cronbach's $\alpha = .80$).

Perceived usefulness (PU) and perceived ease of use (PEOU) were each measured using six items from the Technology Acceptance Model (Davis, 1989). These scales assessed how helpful and user-friendly students perceived digital tools to be in clinical practice (See Appendix B). PU showed acceptable internal consistency ($\alpha = .66$). PEOU demonstrated acceptable consistency ($\alpha = .72$).

Social influence was measured using an 8-item self-developed scale grounded in the Theory of Planned Behaviour (Ajzen, 1991) and further informed by key theoretical perspectives on social influence and subjective norms (Cialdini & Goldstein, 2004; Kelman, 1958; Venkatesh & Bala, 2008; see Appendix C). The items assessed the perceived expectations and encouragement from peers, mentors, and academic staff regarding the use of digital tools in psychological practice. An example item is: "My peers support the integration of digital technology in psychological practice." The scale demonstrated acceptable internal consistency ($\alpha = .71$).

Professional role perception was assessed using a self-constructed 8-item scale, based on the work of Ibarra (1999), Pratt et al. (2006), and Ahuja and Thatcher (2005), measuring the extent to which students viewed digital competencies as essential to their future professional identity (see Appendix C). An example item is: "I believe that integrating technology into therapy aligns with ethical psychological practice". This scale demonstrated moderate reliability ($\alpha = .66$). Participants also completed a demographic section.

Procedure

The study received ethical approval from the Ethics Committee of the University of Twente. Participation was fully voluntary and anonymous. Participants were recruited using convenience sampling via the University of Twente's Sona system and social media platforms (See Appendix D). Participants were informed of their right to withdraw at any point without penalty. All data were stored securely and were accessible only to the research team.

Data collection was conducted online using the Qualtrics platform. Before beginning the survey, participants were presented with an informed consent form detailing the study's purpose, the voluntary nature of participation, and the confidentiality of data (See appendix E). Only after providing informed consent could participants proceed with the survey.

The survey followed a fixed order, beginning with demographic questions, in which they reported their age, gender, nationality, university, study program, year of education, and familiarity with digital technologies, followed by the Digital Literacy Skills Questionnaire, the TAM scales (PU and PEOU), the Social Influence Questionnaire, and finally the Professional Role Perception Questionnaire. The survey took approximately 15 to 20 minutes to complete. Participants recruited through the Sona system received 0.25 Sona credit. All responses were collected anonymously.

Analysis Plan

All analyses were conducted using RStudio (version 4.4.0) with the packages lavaan, psych, and tidyverse. Descriptive statistics and internal consistency (Cronbach's alpha) were calculated for each multi-item scale to assess reliability and distribution characteristics. Item-level means were aggregated to create composite scores for digital literacy, social influence, professional role perception, perceived ease of use (PEOU), and perceived usefulness (PU).

To test Hypotheses 1 through 4, multiple linear regression analyses were conducted. Specifically, PEOU was regressed on social influence, professional role perception, and digital literacy to evaluate direct effects (H1–H3). PU was regressed on PEOU to assess the effect proposed in H4.

Hypotheses 5 through 10, which proposed mediation and direct effects of social influence, professional role perception, and digital literacy on PU via PEOU, were tested using structural equation modelling (SEM) in the lavaan package. Bootstrapping with 1,000 resamples was used to estimate indirect effects and their significance. Model fit was evaluated using established indices, including the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR).

All tests used a significance threshold of $\alpha = .05$.

Results

Descriptive Statistics

Table 1 presents the means, standard deviations, and Pearson correlation coefficients for all key study variables. On average, participants reported relatively high scores on digital literacy, social influence, professional role perception, PU, PEOU. The strongest correlation was observed between perceived ease of use and perceived usefulness ($r = .64$, $p < .001$), indicating that students who perceived digital technologies as easier to use also tended to find them more useful, consistent with the Technology Acceptance Model (TAM). Other correlations were small to moderate in size, suggesting limited multicollinearity and supporting the inclusion of all predictors in regression and structural equation models.

Table 1

Descriptive Statistics and Correlations for Study Variables (N = 65)

Variable	M	SD	1	2	3	4	5
1. Digital Literacy	5.73	0.61	-				
2. Social Influence	5.13	0.70	.20	-			
3. Professional Role Perception	5.22	0.64	.15	.35	-		
4. Perceived Ease of Use	5.18	0.70	.25	.27	.53	-	
5. Perceived Usefulness	5.02	0.64	.31	.29	.28	.64*	-

Note. M = Mean; SD = Standard Deviation. All items were rated on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree).

Direct Effects on PEOU

To test Hypotheses 1 through 4, multiple linear regression analyses were conducted. Social influence did not significantly predict perceived ease of use, $B = 0.05$, $SE = 0.15$, 95% CI [−0.25, 0.36], $p = .697$, providing no support for Hypothesis 1. In contrast, professional role perception was a significant positive predictor of perceived ease of use, $B = 0.58$, $SE = 0.15$, 95% CI [0.27, 0.89], $p < .001$, supporting Hypothesis 2. This indicates that students who saw digital competencies as part of their future professional role also tended to view digital tools as easier to use. Digital literacy was not a significant predictor of perceived ease of use, $B = 0.01$, $SE = 0.13$, 95% CI [−0.25, 0.27], $p = .941$, and thus Hypothesis 3 was not supported. Perceived ease of use significantly predicted perceived usefulness, $B = 0.59$, $SE = 0.11$, 95% CI [0.36, 0.81], $p < .001$, providing strong support for Hypothesis 4. This suggests that students who perceived digital tools as easier to use were also more likely to perceive them as useful.

Mediation Analysis

Hypotheses 5 through 7 were evaluated using structural equation modelling (SEM) with 1,000 bootstrap resamples. The model demonstrated excellent fit to the data (CFI = 1.00, RMSEA = 0.000, SRMR = 0.000). The indirect effect of social influence on perceived usefulness via perceived ease of use was not significant, $\beta = 0.03$, $SE = 0.09$, 95% CI [−0.14, 0.18], $p = .729$, providing no support for Hypothesis 5. However, the mediating role of perceived ease of use

between professional role perception and perceived usefulness was significant, $\beta = 0.34$, $SE = 0.12$, 95% CI [0.10, 0.59], $p = .005$, supporting Hypothesis 6. This suggests that students who saw digital competence as part of their professional identity were more likely to perceive digital tools as useful, in part because they viewed them as easier to use. The indirect effect of digital literacy on perceived usefulness via perceived ease of use was not significant, $\beta = 0.01$, $SE = 0.08$, 95% CI [−0.15, 0.16], $p = .942$, providing no support for Hypothesis 7.

Direct Effects on PU

In addition to the mediation paths, direct effects of the external predictors on perceived usefulness were tested within the structural model. Social influence did not significantly predict perceived usefulness, $B = −0.004$, $SE = 0.11$, 95% CI [−0.23, 0.22], $p = .969$, failing to support Hypothesis 8. Likewise, professional role perception had no significant direct effect, $B = −0.008$, $SE = 0.11$, 95% CI [−0.23, 0.22], $p = .940$, so Hypothesis 9 was not supported. Digital literacy also did not significantly predict perceived usefulness directly, $B = 0.11$, $SE = 0.08$, 95% CI [−0.04, 0.29], $p = .176$, and thus Hypothesis 10 was not supported.

Discussion

This study investigated how social influence, professional role perception, and digital literacy shape psychology students' attitudes toward digital technologies in mental healthcare, with a particular focus on perceived ease of use and perceived usefulness. The findings offered partial support for the proposed theoretical model grounded in the Technology Acceptance Model (Davis, 1989), the Theory of Planned Behaviour (Ajzen, 1991), and digital literacy frameworks (Kontos et al., 2014) and identity theory (Ibarra, 1999; Pratt et al., 2006).

Interpretation of Findings

The significant relationship between PEOU and PU supports the well-established TAM proposition that technologies perceived as easier to use are also perceived as more useful (Davis, 1989; Venkatesh & Bala, 2008). This connection is particularly relevant in digital mental healthcare, where usability is a key determinant of tool adoption (Harty et al., 2023). This highlights the importance of user-friendly design in the development of digital mental health solutions.

The significant role of professional role perception supports theoretical assumptions from both TPB and identity-based frameworks (Ajzen, 1991; Ibarra, 1999; Pratt et al., 2006). Students who saw digital competence as a key component of their future professional identity were more likely to perceive digital tools as easy to use and, subsequently, useful. This underscores the influence of identity learning and internalized professional norms on technology acceptance (Cialdini & Goldstein, 2004; Gbollie et al., 2023).

The non-significant effect of social influence contrasts with earlier findings in which normative pressure from educators and peers was shown to facilitate technology acceptance (Venkatesh & Bala, 2008; Kelman, 1958). One possible explanation is that students in this sample, most of whom were still in the academic phase of their training, may not yet experience strong external expectations to adopt digital tools. Alternatively, this finding may reflect a shifting dynamic, wherein internalized beliefs about professional identity carry more weight than perceived social norms at the pre-professional stage.

Similarly, digital literacy—though typically considered an important predictor of positive attitude towards technology—did not significantly influence attitudes in this study (Hatlevik et al., 2015). This may be due to a ceiling effect, with most participants demonstrating high baseline levels of general digital competence, consistent with prior studies on student populations (Kontos et al., 2014; Özer et al., 2024). Alternatively, it may suggest a distinction between general digital skills and domain-specific competencies relevant to mental health technology. Lastly, while digital literacy did not significantly predict perceived usefulness in this study, the effect size was moderate. This suggests that with a larger sample, the relationship might have reached statistical significance, and thus aligns with previous research (Kontos et al., 2014).

These insights can help universities design curricula that foster not only technical proficiency but also cultivate positive professional identities aligned with a technology-integrated future. Encouraging students to view digital tools as both manageable and meaningful may enhance their long-term openness to innovation. Furthermore, understanding which factors most strongly shape students' perceptions can inform the development of targeted interventions, such as digital literacy training, mentorship initiatives, or reflective exercises around professional identity.

Limitations

While this study contributes to the growing literature on digital readiness in clinical psychology education, several limitations must be acknowledged. First, the use of a convenience sample limits the generalizability of the findings. The sample was primarily drawn from Dutch and German universities, and the cultural, institutional, and curricular influences on professional role perception and technology exposure may vary significantly across countries.

Second, the data were collected through self-report questionnaires, which are subject to social desirability bias and may not accurately capture actual behaviours, skills, or beliefs. Additionally, the cross-sectional nature of the design prevents any claims about causality; although structural equation modelling allows for testing indirect relationships, the temporal order of these effects remains hypothetical. While the structural equation model may suggest directional paths (e.g., professional role perception → PEOU → PU), the data cannot confirm the temporal order of these effects. For example, it's unclear whether students' professional role perception leads them to find digital tools easier to use, or whether students who already perceive digital tools as easy to use begin to see them as more aligned with their future professional identity. A longitudinal design would be necessary to determine the actual sequence of influence.

A further limitation concerns the measurement tools used. Both the social influence and professional role perception scales were self-developed for this study. Due to time constraints and the collaborative nature of the broader questionnaire project, no pilot testing was conducted beforehand. Although the internal consistency of these scales was acceptable, the lack of prior validation limits the interpretability and replicability of the findings.

Recruitment challenges also affected the study. The original aim was to gather at least 100 participants to ensure adequate statistical power for the regression and mediation models. However, the survey contained 140 items—many of which were included to support parallel student projects—which likely contributed to a high dropout rate and reduced completion. As a result, the final sample was smaller than intended, potentially affecting the robustness and power of some analyses.

Future Directions

Future research should aim to replicate and expand these findings in larger and more diverse samples, including trainees with clinical experience or professionals in early stages of their careers. This would help examine how role perception and social influence evolve over time

and how they are shaped by real-world expectations and patient interaction. Moreover, longitudinal studies could clarify the developmental trajectory of technology acceptance from student to practitioner (Ahuja & Thatcher, 2005).

Additionally, future work could distinguish between general digital literacy and clinical digital literacy, which might include competencies such as ethical reasoning around digital care, privacy and data protection, critical evaluation of digital interventions, and selecting evidence-based tools (D'Adamo et al., 2023; Nogueira-Leite & Cruz-Correia, 2023). It may also be beneficial to integrate performance-based or situational judgment tests to complement self-reports, thereby gaining a more objective assessment of digital competence.

Researchers could also explore qualitative approaches, such as interviews or open-ended survey questions, to gain richer insight into how students conceptualize the integration of digital technologies into their future clinical roles. This could reveal nuanced beliefs or concerns that are not easily captured through quantitative scales, such as ethical tensions, fears of dehumanization, or perceived conflicts between traditional therapeutic values and digital modalities.

Finally, future studies should evaluate the impact of targeted educational interventions. For instance, integrating digital health modules into psychology curricula, offering supervised hands-on experiences with eHealth platforms, or facilitating discussions around professional identity and digital care may help bridge the gap between technological competence and confidence in digital clinical practice. Such interventions could also be designed to test whether enhancing perceived ease of use fosters greater openness to technology and strengthens professional alignment with digital innovation—ultimately improving adoption outcomes in the field of mental healthcare (Buntrock, 2024).

Conclusion

Professional role perception significantly predicted perceived ease of use, which in turn predicted perceived usefulness, indicating an indirect link between role perception and usefulness. Contrary to prior research, social influence and digital literacy were not significant predictors, suggesting that students' professional identity may have a greater impact on technology attitudes than external factors or general tech skills. Despite limitations such as sample size and self-report measures, the study points to the importance of integrating digital

competence into professional identity and improving the usability of eHealth tools to support future adoption.

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Appendix A: Digital literacy survey items

All items in this section were rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

1. I can tell the difference between trustworthy and untrustworthy sources of information online.
2. I know how to recognize fake news, hoaxes, or biased opinions when reading content online.
3. I can find and use information from different websites to help with school assignments.
4. Please select strongly disagree here.
5. I know how to give credit to the original sources when I use information from the internet.
6. I can create digital content like images, music, or videos using online tools or apps.
7. I understand the difference between personal websites and official sources.
8. I know which information is safe to share online and what should be kept private.
9. I think carefully before I comment or interact with others on websites or social media.
10. I feel confident using digital tools like Microsoft Office or Google Docs for schoolwork.
11. I try to balance my time between using digital devices and doing offline activities.

Appendix B: Influence and Professional Role Perception

All items in this section were rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

Social Influence Questionnaire

1. My peers support the integration of digital technology in psychological practice.
2. My professors and mentors encourage the use of digital tools in therapy.
3. The academic environment at my university promotes digital literacy in mental healthcare.
4. I feel social pressure to adopt digital tools in my future professional practice.
5. Seeing experienced psychologists use digital tools makes me more willing to adopt them.
6. Professional organizations in psychology emphasize the importance of digital competency.
7. I believe that using digital tools will improve my professional reputation among colleagues.
8. Conversations in my professional network often include discussions about digital innovation in mental health.

Professional Role Perception

9. Being proficient in digital tools is an essential skill for future psychologists.
10. I see digital literacy as a core part of my professional identity.
11. I believe that integrating technology into therapy aligns with ethical psychological practice.
12. My education has prepared me to use digital tools in mental healthcare.
13. I feel confident that digital technology will be a standard part of my psychological practice in the future.
14. Digital competency is necessary to be considered a competent psychologist.
15. Traditional therapeutic approaches should be complemented by digital interventions.
16. A forward-thinking psychologist should continuously update their digital skills.

Appendix C: Perceived Usefulness and Perceived Ease of Use (TAM)

All items in this section were rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

Perceived Usefulness

1. Using digital tools in psychological practice will enhance my effectiveness as a future psychologist.
2. Digital technology will improve the quality of mental healthcare services I can provide.
3. I believe digital tools will make my work as a psychologist more efficient.
4. Using digital interventions will increase my ability to help clients.
5. Incorporating digital tools in therapy will improve client engagement and outcomes.
6. Digital technology will be an essential part of my future professional practice.

Perceived Ease of Use

7. I find digital tools easy to learn and use.
8. I believe I can easily integrate digital technology into my future practice.
9. Digital mental health platforms are user-friendly.
10. With the right training, I would feel comfortable using digital tools in therapy.
11. I feel confident troubleshooting basic issues with digital tools.
12. I believe digital mental health tools require minimal effort to use effectively.

Appendix D: Recruitment Material

Hey everyone,

We are working on identifying the future use of technology in Psychology and mental health practices. It explores how psychology students view integrating digital technology into mental health healthcare, focusing on social influences, ethical concerns and more!

As digital tools become more common in clinical practice, the research focuses on understanding the factors that shape students' perception of adopting such technologies.

The survey only takes around 20 min and when using SONA you can receive 0.25 points.

If you are

- At least 16 years old
- A psychology student (or related study)

and willing to help us out, please take part in our survey! Thank you

Sona link:

https://utwente.sona-systems.com/default.aspx?p_return_experiment_id=3252

Link without Sona:

https://utwentebs.eu.qualtrics.com/jfe/form/SV_0MVtP4wdwGsFLcG

Appendix E: Informed Consent Form

Thank you so much for deciding to participate in our survey!

Introduction

You are invited to participate in a research study conducted as part of our bachelor's thesis at the University of Twente.

This study aims to explore psychology students' attitudes toward integrating digital technology into their future careers in mental healthcare. As digital tools become more prevalent in mental health practice, understanding how future clinicians perceive and are prepared to adopt these technologies is essential. This research seeks to uncover the factors that shape students' perceptions of integrating digital tools into their professional practice. The primary objective of this research is to explore how psychology students view the integration of digital technology into their future careers.

Your participation is voluntary, and you may withdraw at any time without any consequences.

Study Procedure

If you choose to participate, you will complete an online questionnaire that will take approximately 15 to 20 minutes. The questionnaire consists of demographic questions and questions related to digital literacy, technology acceptance, social influence, and professional role perception.

Confidentiality

Your responses will be anonymous, and no personally identifiable information will be collected. All data will be stored securely and used solely for the purposes of this research. Participation in this study is entirely voluntary. You may decline to answer any question or withdraw at any time by closing the survey window.

There are no anticipated risks associated with your participation. While there are no direct benefits, your participation will contribute to a better understanding of students´ attitudes toward integrating digital technology into their future careers in mental healthcare .

As a token of appreciation, you will receive 0.25 Sona points upon completion of the survey.

Contact Information

If you have any questions about this study, you can contact me at i.hendriks-1@student.utwente.nl or my supervisor, Marlon Nieuwenhuis at M.Nieuwenhuis@utwente.nl. For concerns regarding ethical approval, you may contact the Ethics Committee of the University of Twente.

By clicking "I agree" below, you confirm that you:

- Have read and understood the information provided above.
- Voluntarily agree to participate in this study.
- Are at least 16 years old.