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Data Access and Transition Support When Digital Health Interventions Are Discontinued: A Study of Public Documents

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Abstract

Background

Withdrawal of a digital health intervention can interrupt both self-management functions and access to accumulated personal information. Product survival studies do not establish what users are told when access ends. This study described personal-data access and transition-support information in publicly retrievable discontinuation communications.

Methods

An exploratory public-document audit was initiated on October 4, 2026. Six purposively selected operator-announced cessation events, dated between November 2022 and September 2026, were examined using 21 source records. Six domains covered personal-data copy options, procedures, deadlines, disposition, direct record migration, and contact routes. Coding distinguished cessation-linked statements, generic policies, incomplete procedures, explicit unavailability, non-documentation, and inassessable content. Descriptive counts used all six events; a source-restricted descriptive analysis excluded two events whose dated notices depended on a third-party email archive. Service operations and patient outcomes were not tested.

Results

Cessation-linked copy options were described for three of six events, concrete procedures for two of six, copy deadlines for three of six, data disposition for four of six, and contact routes for four of six. One retrospective notice preserved a transcript-request cutoff without reproducing the original submission procedure; a historical privacy policy separately described a request route. No inspected source described operator-supported direct migration of personal health history, and one FAQ expressly excluded direct platform transfer. Excluding the two archive-dependent events yielded copy options for three of four, procedures for two of four, deadlines for three of four, disposition statements for three of four, and contact routes for three of four. Successor content, commercial contact transfer, general support resources, and advice to preserve self-management functions represented different forms of transition information.

Conclusions

In this selected material, discontinuation communications varied in how they connected service withdrawal with practical data-preservation and support instructions. Historical privacy rights, personal copies, and direct migration should be evaluated separately. These observations motivate prospective evaluation of proposed discontinuation procedures; they do not establish actual care disruption, data loss, or the prevalence of inadequate practice across digital health.

Categories: Psychiatry, Health Policy, Healthcare Technology
Keywords: data access, digital health, document analysis, health applications, patient records, service discontinuation, transition support

Introduction

Digital health interventions depend on continuing access to software, accounts, infrastructure, and organizational support. When an intervention ends, users may need to replace an activity, retrieve a personal history, or understand which reminders and communication channels will remain available. These needs are distinct even when they arise on the same date. An announcement that an app is closing can identify the service endpoint while leaving the next steps for preserving information or maintaining a routine unclear.

The instability of the app environment is established. Larsen and colleagues documented longitudinal

changes in mental health app search results, showing why an app identified at one time may not remain available in the same form [1]. More recently, Herpertz and colleagues examined the longevity of mental health apps using a large app database [2]. Their archival endpoint encompassed several conditions, including download unavailability, lack of updates for four years, and content inconsistent with accepted clinical standards or current evidence. Such endpoints are useful for understanding maintenance and availability, but they do not measure the instructions accompanying a particular withdrawal.

The possible consequences of discontinuation have also attracted conceptual attention. Kelly and colleagues proposed a framework for the effects of artificial intelligence discontinuation in mental health applications [3]. That framework motivates questions about dependence on ongoing support and planning for withdrawal; it does not establish that a specific clinical syndrome occurred in the events examined here. A documentary study can address the narrower question of what information remains publicly retrievable after withdrawal.

Continuity has different meanings across products and care settings. Physician ethics guidance emphasizes adequate notice and facilitation of care transfer when a patient-physician relationship ends [4]. Many consumer applications do not establish that relationship, so physician-specific duties cannot simply be assigned to every operator. Similarly, US Department of Health and Human Services guidance directs app developers to consider product function, collected data, and service relationships when assessing applicable privacy requirements [5]. A common observational framework should therefore avoid treating every intervention as a regulated medical device, every user as a clinical patient, or every stored interaction as a medical record.

Sustainability research also places withdrawal within a broader implementation lifecycle. Greenhalgh and colleagues' NASSS (nonadoption, abandonment, scale-up, spread, and sustainability) framework examines nonadoption, abandonment, and challenges to sustained use across seven interacting domains [6]. Strudwick and colleagues subsequently argued in an editorial for deliberate infrastructure and implementation science to support sustainable digital mental health [7]. These perspectives motivate examining how organizations describe the end of access, alongside research on adoption and continued use.

Nevertheless, public instructions can be examined without deciding the legal classification of each service. Users can be told whether a copy is available, how to obtain it, when requests end, and what will happen to retained information. A successor may preserve educational content while leaving personal history behind. A downloadable report may support a consultation without importing information into another system. These distinctions matter to the interpretation of a closure notice and to the design of practical transition procedures.

This exploratory audit asked what information about personal-data access and transition support remained publicly retrievable for six announced cessation events. For each event, the primary objective was to describe the presence and specificity of six domains: a personal-data copy option, a concrete request procedure, a copy deadline, data retention or deletion, operator-supported direct transfer into a successor service or receiving clinical system, and a contact route. The secondary objective was to characterize successor content, commercial contact-transfer offers, crisis or non-emergency signposting, and advice to preserve self-management functions. The framework was developed and applied exploratorily; no a priori hypotheses were tested. The study assessed documentation of support and data access, not actual continuity of care or industry-wide practice.

Materials And Methods

Design and unit of analysis

An exploratory, cross-sectional audit of publicly retrievable organizational documents was initiated on October 4, 2026. The unit of analysis was an announced cessation event affecting an end-user digital health intervention. Documents were evidence for that event, not independent observations in the denominator. Repeated notices from the same operator were consolidated. The study assessed what the selected materials stated; it did not independently establish that the announced technical shutdown occurred exactly as described.

The six-event sample was purposive. It was not drawn from an enumerated population of all digital health products. The audit was not prospectively registered. The coding framework was developed for this exploratory audit and was not validated in a separate sample. No claim of systematic-review completeness, statistical representativeness, or qualitative saturation is made.

Eligibility and source identification

Eligible events concerned an app or digitally delivered intervention supporting mental health, wellbeing, or condition self-management; included an operator-authored statement identifying a specific cessation date on or before the audit date; and described withdrawal of the relevant service or functionality. No lower date boundary was imposed during discovery. The observed dates consequently reflect the selected cases.

Corporate bankruptcy, asset acquisition, rebranding, or removal from a distribution platform was insufficient by itself when loss of the relevant end-user service was not established. Retirement notices without an exact cessation date and partial changes with unresolved cessation scope were excluded from the selected cohort.

Exploratory web searches combined intervention and product names with terms relating to discontinuation, closure, retirement, shutdown, export, records, and privacy. Candidate discovery used two web search engines (Google and Microsoft Bing), followed by direct inspection of operator websites, help pages, linked policies, and successor communications. News reports and informal accounts were discovery leads only. User-review narratives were not extracted or analyzed. Search results were used to locate documents, not to infer that an event had occurred solely from a search-result count.

The included source corpus comprised 21 records. An operator-authored email preserved by a third-party archive was eligible when authorship and event wording were displayed, but its source was flagged. The archive's send-time label was not treated as authenticated delivery evidence. The analytic text was English. Product categories reflected operator-described intended functions, rather than inferred diagnoses or regulatory classifications. Table *1* identifies the cases, operational scope, and source sets.

Intervention and operator	Scope of announced withdrawal	Announced endpoint	Source records
Shine (Shine, Inc., New York, New York, USA)	Standalone Shine app	Nov 18, 2022	3 [8-10]
One Drop (Informed Data Systems, Inc., New York, New York, USA)	Mobile app and related services	Nov 30, 2024	4 [11-14]
Bloom (Meemo Media, Inc., Brooklyn, New York, USA)	Consumer Bloom app	Feb 23, 2025	5 [15-19]
Woebot (Woebot Labs, Inc., doing business as Woebot Health, San Francisco, California, USA)	Woebot app and account access	Jun 30, 2025	4 [20-23]
Heart and Stroke Helper (American Heart Association/American Stroke Association, Dallas, Texas, USA)	App access, reminders and app-mediated connected-device information	Jun 30, 2026	2 [24-25]
Youper (Youper, Inc., San Francisco, California, USA)	Youper services	Sep 30, 2026	3 [26-28]

TABLE 1: Selected cessation events and source coverage

Endpoints describe operator announcements, not independently tested operations. Source records are not additional events. Shine and One Drop rely on operator-authored notices preserved by Milled for their dated cessation evidence. Product identity and location identify the operator; they do not imply current service availability or regulatory classification.

Extraction and domain coding

Structured extraction recorded product identity, support context, announced endpoint, the earliest, precisely dated included communication when available, source provenance, and six domains. A copy option meant a statement about obtaining personal information such as a transcript or report. Procedural detail required concrete steps or a designated submission route. A copy deadline required a date tied to a request or download; a service cutoff alone did not qualify. Data disposition concerned retention, non-retention, deletion, or anonymization. Loss of account access alone was insufficient.

Direct record migration was defined narrowly as an operator-supported mechanism for moving personal health history directly into a successor platform or receiving clinical system. A patient-held copy, later patient-mediated sharing, acquisition of content, or transfer of marketing contact information did not meet this definition. A general portability right without a described transfer mechanism into a receiving service was also insufficient. Contact routes were recorded separately from whether they were usable or responsive. Forms that did not render were not submitted or assumed to support request types beyond those explicitly designated in another included readable source.

Each domain received a descriptive code: E for an explicit cessation- or transition-linked statement; G for generic or historical information; N for information not documented in the included readable corpus; U for relevant identified content that could not be assessed; X for an explicit statement that an operation was unavailable; and P, restricted to procedural detail, for a cessation-linked copy option with incomplete instructions. An X code represented a documented negative statement, not missing information. The existence of generic rights did not convert an earlier privacy policy into a cessation-specific procedure. A case-level retrieval qualification identified incomplete coverage. U was applied when inaccessible content prevented assessment of the domain; an inaccessible subsidiary page did not require U when another

included, readable source supplied sufficient domain-specific information.

General crisis resources, successor content offers, commercial contact-transfer opportunities, and advice to preserve self-management functions were summarized descriptively. These categories were not ranked as equivalent substitutes for clinical care. No composite quality score was constructed. Source locations were retained for each coding decision, and ambiguous statements were interpreted conservatively without importing unverified claims from secondary accounts.

Analysis and source restriction

Domain counts and date differences were calculated from the event-level matrix using Microsoft Excel (Microsoft Corporation, Redmond, WA, US). All six events remained in the main denominator; G, N, U, P, and X were kept distinct. Counts of E describe explicit cessation-linked information, not verified delivery of a service. No confidence intervals, significance tests, or comparisons between clinical categories were calculated because the sample was small and purposive.

Table *2* defines the domain codes used in the audit.

Code	Meaning and interpretation
E	Explicit statement tied to cessation or successor transition; implementation is not verified.
G	Generic or historical policy/support information only; not tied to this cessation.
N	Not documented in the included readable corpus; not proof of absence in practice.
U	Not assessable because relevant identified content was not retrievable/rendered.
X	The assessed operation is explicitly unavailable; this is a documented negative statement, not missing evidence.
P	A cessation-linked copy option is documented, but the inspected cessation materials omit sufficiently specific instructions. Used only for copy procedures.

TABLE 2: Domain-code definitions

Apply codes to each domain. Do not sum codes into a composite score. E, P, and X describe substantively different findings; generic rights are not treated as cessation-specific services.

Calendar intervals were calculated only when both dates were explicit. The difference between a retrieved communication date and a cessation date was not interpreted as the first notice given to users. The interval between cessation and a copy-request cutoff was reported separately. Month-only dates, website copyright years, and search-engine crawl dates were not imputed as notice dates. A policy's displayed update date was not assumed to date the addition of an individual cessation section. A source-restricted descriptive analysis removed the two events dependent on third-party email archives for their dated cessation notices, retaining the same coding rules in the remaining four events. This restriction does not correct selection or retrieval bias.

No second coder or inter-rater reliability assessment was used.

Table *3* specifies the operational definitions applied to the six extraction domains.

Domain	Operational definition
Copy option	A statement about obtaining a transcript, report, export, or other copy of personal information. An account-viewing window alone does not qualify; the domain code records cessation specificity.
Copy procedure	Concrete steps or an explicitly designated submission route for obtaining a copy. A general contact beside a deadline does not by itself establish a copy-request procedure.
Copy deadline	An explicit final date tied to requesting/downloading/exporting a copy; a service cutoff or nonretention date alone does not qualify.
Data disposition	A statement about retention, nonretention, deletion, or anonymization of personal data. Loss of app functionality or account access alone is insufficient; technical completion is not validated.
Direct record migration	An operator-supported mechanism for transferring personal health history directly into a successor platform or receiving clinical system. Patient-held copies, later patient sharing, content acquisition, and marketing-contact transfer do not qualify.
Contact route	An identified operator or successor support/contact route. Generic retained contacts or request links are G; contents and responsiveness are separately qualified and not assumed.

TABLE 3: Extraction-domain definitions

Dates are retained only at their supported precision. The earliest precisely dated retrieved communication is not necessarily the first notice. Product endpoints, copy-request deadlines, and disposition dates represent separate observations.

Table 4 identifies all 21 source records, their extraction locations, and the qualifications supporting the event-level coding. Its source/date column records document publication or displayed update dates, not retrieval dates. The audit date was October 4, 2026. Source records are documents, not additional cessation events. The five Milled records preserve operator-authored communications for which original hosted copies were not located; they are identified as third-party archives rather than current operator webpages.

Source/date	Document location	Extraction scope/retrieval qualification
S01 [8] 2022-10-24	Displayed send date and cofounders' message	Standalone app ending; a three-month Headspace offer was announced. Displayed send date is archive metadata; delivery and original headers were not authenticated.
S02 [9] Undated	Welcoming all Shine members; Keep on shining	A code-based trial and location of successor content were displayed; redemption was not tested.
S03 [10] Undated	Main article and help contact	Gives navigation to successor content and help@headspace.com; no Shine historical-record transfer statement found.
S04 [11] 2024-11-04	Displayed send date; founder's transition message	App and related services scheduled to end November 30, 2024. Further transition information was promised; hardware function was not independently assessed.
S05 [12] 2024-11-06	Opening paragraph; About Dexcom; consent explanation	Nonretention of user health data after the end date was stated. Dexcom opt-in covered contact details and communications, not transfer of health histories.
S06 [13] 2024-11-18	Displayed send date and founder's message	Repeats the November 30 cessation and future-support pledge; no export procedure identified.
S07 [14] 2024-11-25	Displayed send date and founder's	Final retrieved reminder repeats cessation date; it is not an independent discontinuation event.

	message	
S08 [15] Undated	Thank you and Goodbye	February 23, 2025 app discontinuation stated alongside acquisition information; no dated original publication supplied.
S09 [16] 2022-11-09	Your Choices; Data Retention and Storage; Data Subject Rights	Generic data rights, contact route and purpose-based retention; no closure-specific copy deadline. The 24-month provision applies to automatically collected information only.
S10 [17] Undated	Manage Subscription; Contact us	Support email and cancellation/refund instructions remained. Several instructions require the app; functionality after cessation was not tested.
S11 [18] 2020-11-20	Who May Use the Services and health disclaimer	Product scope excludes diagnosis, prevention, and treatment claims; this is a classification source, not a closure-specific continuity plan.
S12 [19] 2024-03-12	First two paragraphs	Rights to content and tools were acquired for Spring Health members; eligibility or records transfer for former Bloom consumers was not established.
S13 [20] Undated	Retirement paragraph; transcript question; anonymization question; contact	Retirement June 30, 2025; transcript request cutoff July 15; anonymization July 31. Request option is described, but the original submission steps are not reproduced.
S14 [21] Undated	Crisis resources and Additional non-emergency services	General crisis and non-emergency signposting is linked in site navigation; it is not a facilitated clinical handoff.
S15 [22] 2022-04-28	Medical and professional-services disclaimer	Self-help scope; no medical professional-patient relationship established by the stated services.
S16 [23] 2022-08-31	How Can I Control My Personal Data?; Request your personal data	A historical email/app-settings request procedure remains; its availability for the retirement period was not independently established.
S17 [24] Undated	Opening paragraph; Hospital Registration	Specifies June 30, 2026 termination of all user access and provides the companion FAQ link.
S18 [25] Undated	PDF pages 1-2; questions 6-9, 11, 13-15, 20	Gives patient-report download steps, June 30 deadline, deletion, stopping reminders, manual preservation actions, clinician discussion and support; expressly excludes direct platform transfer. Year comes from the linked landing page.
S19 [26] Undated	Banner; Crisis Resources; Important Disclosures	September 30, 2026 cessation stated. General crisis routes and professional-care advice remain; the product disclaims medical treatment.
S20 [27] 2026-07-27 (displayed update)	Embedded privacy policy, Section 14; substantive provisions	Describes export via app settings or the designated request URL until September 30, 2026; permanent deletion on or about October 1, including production and backup systems; limited corporate records retained for legal, tax, or accounting purposes, excluding health and conversation data; no sale, sharing, or transfer of user personal data to third parties; and privacy contact until deletion completion. Operations were not tested.
S21 [28] Undated	Embedded Termly request route	The linked form did not render during the audit. Section 14 of the privacy policy identifies this URL as an export request route; that documented designation does not establish form functionality. No request was submitted, and responsiveness was not tested.

TABLE 4: Source inventory and extraction locations

Initial audit: October 4, 2026. The source/date column gives publication or displayed update dates. URLs appear in the references.

Research integrity and ethics

Only public organizational communications were analyzed. No participants were recruited, no patient records or identifiable private information were obtained, and no individual users' experiences were used as research observations. There was no account creation, functional app testing, request submission, or contact with operators. No institutional ethics determination was obtained for this document-based work; an approval number or exemption designation is therefore not asserted.

Results

Sample and documentation coverage

The six announced endpoints ranged from November 18, 2022, to September 30, 2026. Four events concerned mental health or wellbeing support, one concerned diabetes self-management, and one concerned cardiovascular and stroke self-management. The cohort comprised 6 events and 21 source records; 5 archived operator messages represented 2 events (Table *1*).

Personal-data copies, procedures, and deadlines

Cessation-linked copy options were documented for three of six events, concrete procedural instructions for two of six, and copy-related deadlines for three of six. The three events with an explicit copy option were Woebot, Heart and Stroke Helper, and Youper.

Heart and Stroke Helper and Youper received E for copy procedure. Youper's readable Section 14 explicitly designated app settings and an export-request URL; E records that documented route, not the functionality of the linked form, which did not render and was not tested. Woebot received P because the inspected cessation-specific materials documented a copy option without sufficiently specific original submission instructions.

Bloom received G for copy option and procedure; Shine and One Drop received N. Youper received E/E/E/E/N/E. Table *5* presents the complete event-level coding; the supporting source locations and retrieval qualifications appear in Table *4*.

Intervention	Copy option	Copy procedure	Copy deadline	Data disposition	Direct migration	Contact route
Shine	N	N	N	N	N	E
One Drop	N	N	N	E	N	N
Bloom	G	G	N	G	N	G
Woebot	E	P	E	E	N	E
Heart and Stroke Helper	E	E	E	E	X	E
Youper	E	E	E	E	N	E

TABLE 5: Event-level coding of the selected public-document corpus

E: explicit cessation/transition-linked statement; G: generic/historical information; N: not documented in included readable material; U: relevant identified content unassessable; P: copy option documented but cessation-specific procedure incomplete; X: operation explicitly unavailable.

Codes concern documentation, not actual performance. Youper's codes reflect Privacy Policy Section 14; its designated request route supports procedure E, although the form did not render and was not tested. Its broad third-party-transfer statement does not establish a specific direct-migration exclusion, so migration is N. Woebot's generic historical request route does not change its P code. Direct migration excludes patient-mediated sharing.

Data disposition and direct migration

Cessation-linked disposition statements were documented for four of six events: One Drop, Woebot, Heart and Stroke Helper, and Youper. Bloom received G for historical or generic disposition information, and Shine received N. No event received E for operator-supported direct migration. Heart and Stroke Helper received X because its FAQ expressly excludes direct platform transfer; the remaining five events received N. Youper's

general third-party-transfer statement did not specifically assess the defined migration mechanism.

Forms of transition-support information

The extracted transition-information categories included successor access or content information for Shine and Bloom, commercial contact-transfer information for One Drop, general crisis or non-emergency signposting for Woebot and Youper, and preservation of self-management functions for Heart and Stroke Helper.

Woebot, Youper, Shine, and Heart and Stroke Helper had cessation- or successor-linked contact routes, giving four of six events. Bloom received G; One Drop received N.

Timing and source restriction

The intervals from the earliest precisely dated included communication to the announced endpoint were 25 days for Shine and 26 days for One Drop. No comparable interval was assigned to the other four events. Woebot's July 15, 2025 copy-request cutoff was 15 calendar days after its June 30 retirement date; this distinct interval was reported separately.

Removing the two archive-dependent events, Shine and One Drop, left four events. Cessation-linked copy options were documented for three of four, concrete procedures for two of four, copy deadlines for three of four, disposition for three of four, and contact routes for three of four. No direct migration mechanism was documented in that subset. Table *6* reports the main and restricted counts. This is a source-restricted descriptive analysis, not a correction for selection or retrieval bias. In an alternative coding scenario excluding Youper from the E count for the copy procedure, the procedure fractions were 1/6 and 1/4; the main E classification remained based on the policy's designated route.

Domain (E code only)	All events (n=6)	Excluding archive-dependent events (n=4)
Personal-data copy option	3/6	3/4
Concrete copy procedure	2/6	2/4
Copy-related deadline	3/6	3/4
Data disposition	4/6	3/4
Operator-supported direct migration	0/6	0/4
Event or successor contact route	4/6	3/4

TABLE 6: Explicit cessation-linked information in the main and source-restricted descriptive analyses

The source-restricted descriptive analysis removes Shine and One Drop because their dated cessation evidence depended on a third-party email archive. It does not correct selection or retrieval bias. G, N, U, P, and X remain distinct in Table 5; all events remain in each specified denominator. A zero for E does not establish that the operation never occurred. In an alternative scenario excluding Youper from the E count for copy procedure, the corresponding fractions are 1/6 and 1/4; all other E counts are unchanged.

Discussion

Principal interpretation

The retrieved documents contained different combinations of copy options, procedures, deadlines, disposition statements, and support information. Among the three events with cessation-linked copy options, one had incomplete procedural information in the retrieved cessation materials. No inspected source described a mechanism meeting the study's definition of operator-supported direct migration. The framework separates conceptually different types of information; the observed counts do not establish whether users could complete the intended actions.

The distinction between a cessation notice and a historical policy affected the procedural classification for Woebot. Whether that distinction mattered to users cannot be determined from the recovered pages. A general right to request information can coexist with a notice that no longer explains how requests were handled during withdrawal. A current page may preserve a past deadline while omitting earlier instructions. Accordingly, this audit measures the documentation recovered during the audit. It cannot determine whether a user who was active at the time received better instructions, whether an email link worked then, or whether individualized assistance filled a public-information gap. Huckvale and colleagues found

discrepancies between privacy disclosures and observed third-party data transmission in apps for depression and smoking cessation [29]. Although that study examined active apps rather than withdrawal, it reinforces the distinction between documented policies and verified technical behavior.

The source-restricted descriptive analysis shows how the retained fractions change when Shine and One Drop are excluded. Removing these events, which had many N codes, can mechanically increase the fractions with explicit information. The restriction does not correct selection or retrieval bias and does not validate a population estimate.

The NASSS framework places abandonment and sustainability within interacting technological, organizational, adopter, and wider-system conditions [6]. This perspective helps locate discontinuation planning within an intervention's lifecycle. The present audit examined only public transition documentation; it did not measure the framework's domains or explain why the services ceased. Its contribution is a narrower account of the instructions available when continued access ends.

Strudwick and colleagues' editorial argues for deliberate implementation infrastructure to support sustainable digital mental health [7]. Governance, workforce support, and integration into routine services provide a useful context for planning withdrawal as well as adoption. Applying that perspective here suggests assigning responsibility for maintained notices, data requests, and transition support before an endpoint is reached. This is a design implication, not evidence that any particular infrastructure would have prevented the audited cessations.

Implications for care and self-management

Digital-intervention withdrawal should be understood in relation to the function that a user must replace. A meditation library, conversational self-help tool, medication reminder, and clinical service can create different transition needs. The observed documentation does not justify a common claim that all users lost treatment or that all operators owed identical clinical obligations. However, it does suggest useful questions for clinicians and organizations that recommend an intervention: what information would need to remain available, which routines depend on the app, and who would explain the next step if the service ends?

For an intervention incorporated into an established clinical relationship, responsibility for care transfer should be evaluated within that relationship and its applicable duties [4]. For consumer self-management, practical continuity may involve preserving a routine, selecting an alternative tool, or taking a summary to an existing clinician. A directory or crisis number can be helpful signposting, but this audit cannot equate such information with acceptance by a receiving service. Future evaluations should specify the intended transition task and measure whether it was completed.

Similarly, a downloadable history has several possible uses. It may help a person recall patterns, supply material for a clinical conversation, or become an input to another system. Those uses require different levels of completeness and structure. A document audit can identify that a report is mentioned; assessment of interoperability requires an actual sample file, a defined receiving environment, and a tested import. The absence of that testing limits what can be concluded from even a well-described export option.

The source descriptions in Table *4* also require careful interpretation. A transcript, customized report, and general export are not established as equivalent in content, clinical completeness, machine readability, or receiving-system usability. Likewise, deletion, anonymization, and loss of user access describe different processes, and the audit did not verify their technical completion. General signposting does not establish an arranged appointment, acceptance by a receiving clinician, or completed treatment transfer. These distinctions prevent the documented continuity categories from being ranked as interchangeable substitutes for care.

Implications for discontinuation procedures

The documentary gaps and the cited ethical and implementation literature motivate a proposal for prospective evaluation: discontinuation materials should connect the endpoint, the user's actions, and the organization responsible for assistance in one maintained location. The endpoint should distinguish account access, active intervention functions, reminders, new enrollment, and request processing when these end at different times. A copy procedure should identify the route, describe the included information, state the deadline and relevant time zone, and explain how a request can be tracked. These are proposed design elements for evaluation, not a validated checklist derived from patient outcomes. Martinez-Martin and Kreitmair identified accountability, informed consent, and protection of consumer data as ethical concerns in direct-to-consumer digital psychotherapy [30]. These concerns provide an ethical rationale for specifying responsibility and explaining data handling during withdrawal.

A separate disposition statement should explain whether identifiable information will be retained, deleted, anonymized, or transferred, and by whom. It should distinguish the user's access window from any organizational retention requirement. Privacy responsibilities depend on the product and service context [5]; the audit does not determine compliance with a particular statute. The proposed benefit of clearer

wording is narrower: users and clinicians could more readily tell which action preserves a copy and which action changes the operator's retained data.

Continuity instructions should also identify the limits of a successor arrangement. Content availability, eligibility for an account, financial access, historical-data transfer, and acceptance of clinical responsibility are separable. Where direct migration is unavailable, that limitation can be stated alongside a feasible patient-mediated option. Where a product contains clinically consequential reminders or monitoring functions, the notice can name those functions and explain the need for an alternative arrangement. The appropriate duration of support, notice, or copy availability cannot be determined from these six events and requires empirical and context-specific assessment.

For future research, a prospective registry could begin when a withdrawal is announced, retain dated versions of communications, and record subsequent changes. With appropriate permissions, a separate functional study could assess whether representative users can complete the stated export steps, whether outputs contain expected information, and whether receiving services can use them. Patient-centered outcomes could then address unmet support needs, understanding of deadlines, and transition completion. Such work would extend app-longevity research [1,2] and test discontinuation hypotheses [3] without substituting documentation for clinical evidence.

Limitations

Selection and preservation are the main limitations. The purposive sample cannot establish the frequency of inadequate communication in the digital health sector. Requiring a recoverable notice specifying an exact cessation date may preferentially select operators that communicated withdrawal more visibly, while excluding less documented events. The cohort is dominated by mental health and wellbeing tools and should not be generalized to prescription digital therapeutics, hospital information systems, or all connected medical devices. Product and population heterogeneity also prevents a meaningful comparison of outcomes or duties across cases. Preferential inclusion of visible documentation may overstate coverage, while loss of older pages may understate what was originally supplied within included events; the net direction cannot be determined.

Observation occurred after the selected endpoints, sometimes years later. Pages may have been removed, simplified, or rewritten retrospectively. Public sources exclude private email, in-app messaging, contractual notices, clinician communications, and support exchanges that were not recovered. Explicit copy options occurred in the three most recent events, so original communication practices cannot be separated from recency, document survival, or chance. Named operators were not contacted to identify additional communications; codes should not be interpreted as ratings of operator performance.

The coding framework was developed during exploratory work and is not a validated measure of transition quality; testing in a separate event series is needed. There was no independent duplicate review, leaving possible unrecognized extraction or interpretation errors. The declared industry relationships are relevant context for this interpretive audit. No operations, notice receipt, support responses, data destruction, record transfers, or patient outcomes were observed. Statements about proposed harms or benefits therefore remain hypotheses and design considerations, not findings of this study.

Conclusions

Publicly retrievable discontinuation materials in this selected series described different combinations of data-copy opportunities, practical instructions, disposition plans, and continuing support. Their interpretation depended on separating cessation-specific information from historical policies and distinguishing personal copies from direct transfer. Missing or unreadable documentation did not establish that assistance was absent in practice.

Discontinuation planning can be made more inspectable by connecting the affected functions, required user actions, deadlines, data disposition, and responsible contact. Prospective studies should test whether those instructions enable users to preserve information and complete appropriate transitions. The present audit provides a source-linked framework for that work while leaving clinical outcomes and operational effectiveness unresolved.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Shaheen E. Lakhan

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