

BEREAVEMENT IN HIGHER EDUCATION: RETHINKING STUDENT WELLBEING THROUGH DIGITAL AND AI-SUPPORTED APPROACHES

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ABSTRACT

Bereavement is a common yet often overlooked aspect of student life in higher education. While student wellbeing has received increasing attention in recent years, grief is still rarely addressed as a distinct factor shaping students' academic engagement, participation, and sense of belonging. The paper presents a narrative review methodology of existing literature, bringing together perspectives from education, psychology, and digital mental health. It examines how experiences of loss influence students' academic lives and explores the potential and limitations of digitally mediated forms of support, including emerging AI-based approaches. The findings highlight that bereavement remains insufficiently conceptualized and inconsistently addressed within higher education research and practice. Furthermore, current support systems often fail to reflect the complexity and diversity of students' lived experiences. In response, the paper emphasizes the need for more participatory, student-centered, and design-oriented approaches that align with contemporary digital environments. Overall, the paper shows that a more nuanced and context-sensitive understanding of bereavement is essential for developing effective, inclusive, and scalable support systems in higher education.

KEYWORDS

Bereavement, Higher Education, Student Wellbeing, Digital Mental Health, Artificial Intelligence, Chatbots

1. INTRODUCTION

Student well-being has become a central concern in higher education, closely associated with academic engagement, persistence, and overall success [1]. Within this evolving landscape, increasing attention has been directed toward understanding the diverse factors that shape students' experiences and trajectories. However, despite this growing focus, bereavement remains relatively underexamined, even though it represents a common and often profound experience among students [2], [3]. The loss of a loved one can significantly affect emotional stability, cognitive functioning, and the capacity to engage with academic tasks, influencing not only individual performance but also broader patterns of participation and belonging within educational environments [4]. In many cases, these effects are not immediately visible and may only become apparent over time, influencing students' academic engagement in subtle yet persistent ways.

Existing research tends to subsume bereavement under general mental health constructs, which limits a more nuanced understanding of its specific implications in higher education contexts [5]. This lack of differentiation can be particularly problematic in contemporary academic settings

that emphasize inclusivity and student-centered learning, where attention to diverse and complex student experiences is essential. By treating grief as part of broader categories such as stress or anxiety, current approaches risk overlooking its relational, temporal, and meaning-oriented dimensions. As a result, bereavement remains insufficiently theorized as an educational phenomenon, and its impact on engagement, identity, and institutional participation is not fully captured.

The increased visibility of grief-related challenges in the aftermath of global disruptions such as the COVID-19 pandemic further underscores the urgency of addressing this gap [6], [7]. These events have not only intensified experiences of loss but have also exposed limitations in existing support systems, particularly in their ability to respond to complex and evolving student needs. At the same time, they have accelerated the adoption of digital technologies in higher education, creating new possibilities for supporting student well-being, while also raising important questions about the nature and effectiveness of digitally mediated support [8]–[10].

The aim of this paper is to synthesize existing literature on bereavement in higher education, focusing on its impact on student engagement, well-being, and institutional support structures. In doing so, the paper adopts an interdisciplinary perspective that brings together insights from education, psychology, and digital mental health. Particular attention is given to the role of digital environments, not only as tools for support, but also as spaces that shape how emotional experiences are expressed and navigated. Recent advances in artificial intelligence further extend these possibilities, with emerging evidence suggesting that AI-driven conversational agents and chatbot-based systems may offer scalable and accessible forms of support for students experiencing psychological distress [11], [12]. This paper does not aim to provide empirical validation or experimental results, but rather to offer a conceptual and integrative synthesis of existing research. The intention is to identify key gaps and inform directions for future empirical and design-oriented studies.

This study adopts a narrative review methodology, aimed at providing an interpretative and integrative synthesis of existing literature rather than a systematic or exhaustive analysis. The selection of sources was guided by relevance to key themes, including bereavement in higher education, student wellbeing, and digital mental health support. Unlike systematic reviews, this approach does not follow formalized inclusion and exclusion criteria, but instead emphasizes conceptual depth, interdisciplinary perspectives, and the identification of emerging research directions.

Furthermore, this paper contributes by identifying key gaps in current research and by emphasizing the need for more context-sensitive, participatory, and design-oriented approaches to support development. Rather than viewing bereavement as an exceptional circumstance, it is argued that it should be recognized as an integral dimension of student experience, intersecting with core aspects of academic life, including learning, participation, and belonging.

The remainder of the paper is organized as follows. The next section examines bereavement in relation to student experience, with particular attention to its impact on engagement and the role of institutional support systems. This is followed by a discussion of digital environments and emerging support approaches, including a comparative overview of existing models. The subsequent section presents key conceptual perspectives and identifies critical gaps in the literature, highlighting directions for future research. The paper concludes by summarizing the main findings and outlining implications for the development of more inclusive and context-sensitive support systems in higher education.

2. BEREAVEMENT, STUDENT EXPERIENCE, AND SUPPORT SYSTEMS

Bereavement constitutes a widespread yet frequently invisible aspect of student life, with significant implications for academic functioning and engagement. Experiences of grief can disrupt concentration, diminish motivation, and interfere with students' ability to sustain consistent participation in learning activities [4]. These disruptions extend across behavioural, emotional, and cognitive dimensions of engagement, shaping how students attend classes, interact with peers and instructors, and process academic content [1]. In many cases, the effects of bereavement are not immediately visible but unfold gradually, influencing patterns of disengagement over time. Students may remain physically present in academic settings while experiencing reduced cognitive and emotional presence, which can affect learning outcomes in subtle yet meaningful ways.

From a psychological perspective, bereavement is not a linear process but a dynamic and oscillating experience. The Dual Process Model of Coping with Bereavement suggests that individuals move between loss-oriented and restoration-oriented coping processes, rather than progressing through fixed stages [13]. This perspective helps explain why students' engagement may fluctuate over time, reflecting shifts between emotional processing and attempts to re-engage with daily academic demands.

Beyond its psychological impact, bereavement is deeply embedded within social and institutional contexts. Students experiencing loss often report a diminished sense of belonging, which can lead to withdrawal from both academic and social environments [2]. This withdrawal is not only a consequence of emotional distress but also reflects a misalignment between students' lived experiences and institutional expectations of performance and participation.

Despite increasing attention to student well-being, institutional responses to bereavement remain limited and often insufficiently differentiated. Support structures are typically embedded within general mental health services, which may not fully capture the relational and process-oriented nature of grief [5]. Furthermore, access to such services may be constrained by stigma, limited availability, or lack of awareness, which further reduces their effectiveness in addressing students' needs [8].

In the absence of structured institutional responses, students frequently rely on informal networks such as peers and family members. However, these networks vary in effectiveness and may lack continuity, particularly for students who are geographically distant from their primary support systems.

At a broader level, existing support approaches remain predominantly reactive rather than proactive, often emerging only after students experience noticeable academic decline. A more anticipatory approach would involve recognizing grief as part of the broader spectrum of student well-being and embedding flexible, compassionate practices within teaching and support structures.

Reflective and expressive approaches may offer an additional pathway for supporting students experiencing grief. Techniques such as expressive writing have been shown to facilitate emotional processing and meaning-making, providing a structured yet personal way of engaging with loss [14]. From a research perspective, qualitative approaches such as thematic analysis offer valuable tools for capturing the complexity of students' lived experiences and informing the design of more responsive interventions [15].

In parallel, digital environments are increasingly recognized as important spaces for delivering mental health support. Emerging evidence suggests that AI-driven conversational agents can provide accessible and scalable forms of support, particularly for younger populations and students [16]. Systematic reviews further indicate that chatbot-based interventions can contribute to improvements in emotional well-being and early engagement with support resources [17].

At the same time, broader analyses of artificial intelligence in mental health care highlight both opportunities and limitations, including ethical concerns, data privacy, and the importance of maintaining human oversight [18]. Scoping studies also demonstrate the growing application of AI chatbots in diverse contexts, pointing to their potential as complementary tools within existing support systems [19]. Finally, meta-analytic evidence suggests that AI-driven conversational agents can have measurable positive effects on mental health outcomes, reinforcing their relevance for future support models in higher education [20].

Taken together, these perspectives highlight the need to move beyond fragmented and reactive support models toward more integrated, flexible, and student-centered approaches. Recognizing bereavement as an integral dimension of student experience opens space for rethinking how higher education institutions design support systems that are not only accessible, but also responsive to the temporal, relational, and emotional complexity of grief.

3. DIGITAL ENVIRONMENTS AND EMERGING SUPPORT APPROACHES

Digital technologies are increasingly embedded in higher education systems, creating new opportunities for supporting student well-being and engagement. These environments enable more flexible and accessible forms of interaction, allowing students to seek support beyond the constraints of traditional institutional structures [9]–[11]. In this sense, digital spaces are not only tools for delivery, but also contexts in which experiences of distress, including bereavement, are expressed and negotiated.

Recent research highlights the growing role of digital platforms in mental health support, including mobile applications, online counselling services, and AI-based conversational systems [12]. While these approaches have significantly improved accessibility and scalability, their capacity to address the emotional depth and relational complexity of grief remains limited. More recent evidence, particularly from systematic reviews focusing on AI-driven interventions, suggests that conversational agents can support emotional expression and provide immediate responses, especially among student and young populations [16], [17]. At the same time, their effectiveness varies depending on factors such as design, personalization, and the degree of human integration.

From a technical perspective, AI-based mental health systems are commonly built on natural language processing (NLP) and large language model (LLM) architectures, enabling conversational interaction and adaptive responses. These systems often rely on intent recognition, sentiment analysis, and context-aware dialogue management to simulate supportive communication. However, their performance depends heavily on training data, model design, and fine-tuning strategies, which may limit their ability to interpret nuanced emotional states such as grief.

To better understand these approaches, Table 1 presents a comparative overview of key digital support models and their implications.

Table 1. Comparison of digital support approaches for bereavement and student wellbeing

Approach	Key Features	Advantages	Limitations
Online Counseling Platforms	Professional support via video/chat	Structured and reliable support	Limited continuity and accessibility
Mobile Mental Health Apps	Self-guided tools and exercises	Scalable and flexible	Generic and non-contextual content
Peer Support Forums	Community-based interaction	Sense of belonging and shared experience	Risk of misinformation and lack of moderation
AI-Based Chatbots	Automated conversational support	24/7 availability and immediacy	Limited empathy and contextual understanding
Co-designed Digital Tools	User-centered, participatory design	Context-sensitive and tailored solutions	Resource-intensive development

A critical comparison of these approaches reveals that no single model adequately balances accessibility, personalization, and emotional depth. While AI-based systems excel in scalability and immediacy, they remain limited in contextual understanding [18], [19]. In contrast, human-delivered support provides depth and empathy but lacks scalability. This highlights the need for hybrid models that integrate technological efficiency with human sensitivity.

Importantly, the effectiveness of digital tools cannot be understood solely in terms of their technical capabilities. Students' engagement with digital support is shaped by contextual factors, including digital literacy, cultural attitudes toward mental health, and levels of trust in both institutional and technological systems. In the context of bereavement, where vulnerability and emotional authenticity are central, these factors become particularly significant. Concerns related to privacy, data use, and the perceived impersonality of automated systems may limit deeper engagement, even when tools are readily available [18].

At this point, it is important to recognize that existing AI-based support systems, despite their growing sophistication, remain fundamentally limited in addressing the deeply personal, context-dependent, and relational nature of grief. While they can simulate empathetic responses, they often lack the capacity to truly interpret meaning, ambiguity, and emotional nuance in ways that human support can. This raises important questions about the role such systems should play—not as replacements for human interaction, but as complementary tools within a broader support ecosystem.

Ethical considerations represent a critical dimension of AI-based mental health support systems. Issues related to data privacy, informed consent, and the handling of sensitive personal information are particularly significant in the context of bereavement. Students engaging with such systems may disclose highly personal experiences, raising concerns about data security and potential misuse. In addition, algorithmic bias and lack of transparency in AI decision-making processes can affect the quality and fairness of support provided. There is also a risk of over-reliance on automated systems, which may lead to reduced human interaction in situations where professional or interpersonal support is necessary. Therefore, the development of AI-based support tools must be guided by ethical frameworks that ensure accountability, transparency, and the integration of human oversight.

At the same time, digital environments introduce meaningful opportunities for rethinking how support is accessed and experienced. Features such as anonymity, asynchronous communication, and continuous availability allow students to engage with support in ways that may feel less intimidating and more accessible than traditional face-to-face interactions. This can be especially valuable in early stages of grief or in contexts where stigma discourages help-seeking behaviour. However, such interactions may also remain fragmented or surface-level, raising questions about their long-term impact on well-being and recovery [20].

From this perspective, it can be argued that the future of digital bereavement support should not be oriented toward fully automated solutions, but rather toward hybrid models that combine technological accessibility with human sensitivity. Such models have the potential to bridge the gap between immediacy and emotional depth, enabling more responsive and context-aware forms of support.

In response to these challenges, co-design has emerged as an important direction for both research and practice. By involving students directly in the design of digital tools, co-designed approaches can better reflect the nuanced and context-dependent nature of bereavement experiences. This aligns with qualitative research practices that emphasize capturing lived experience and meaning-making processes [15]. Additionally, reflective techniques such as expressive writing can complement digital interventions by supporting emotional processing and personal sense-making [14]. While promising, these approaches require sustained institutional support, interdisciplinary collaboration, and resource investment.

Furthermore, integrating such approaches within higher education contexts requires a shift from isolated tool development toward systemic thinking. Rather than focusing on individual technologies, there is a need to design interconnected support environments that align digital tools with institutional practices and student needs.

Overall, the findings suggest that the future of digital bereavement support lies not in isolated tools, but in integrated support ecosystems. Such ecosystems combine digital technologies with human-centered practices, institutional policies, and peer-based support structures. Rather than replacing traditional forms of support, digital solutions should be understood as complementary elements that extend and enhance existing systems. This perspective shifts the focus from individual tools to the broader design of support environments, emphasizing coherence, flexibility, and responsiveness.

In conclusion, digital technologies hold significant potential for supporting students experiencing bereavement, but their effectiveness depends on thoughtful design, contextual sensitivity, and ethical implementation. Future work should focus on developing hybrid models that bridge the gap between accessibility and emotional depth, ensuring that technological innovation remains aligned with the lived realities of students.

4. CONCEPTUAL PERSPECTIVES AND RESEARCH GAPS

Understanding bereavement in higher education requires a multidimensional conceptual perspective that integrates well-being, resilience, and contextual factors shaping student experience. Well-being can be understood as a dynamic construct closely linked to academic engagement, influencing students' capacity to participate meaningfully in learning environments [1]. In this context, bereavement disrupts this capacity by affecting emotional stability, cognitive functioning, and continuity of engagement [4]. Rather than representing a temporary emotional state, grief can be more appropriately understood as an ongoing and evolving process that reshapes how individuals relate to themselves, others, and their academic environments [13].

Within this perspective, engagement should not be viewed solely as a behavioural outcome, but as a relational and context-dependent process. Bereavement introduces discontinuities into this process, altering not only students' individual capacities but also the ways in which they interpret and respond to institutional expectations. The misalignment between the structured, performance-oriented nature of higher education and the nonlinear, deeply personal nature of grief creates tensions that are often insufficiently addressed within existing theoretical frameworks [2], [5].

Resilience is increasingly conceptualized as an emergent and context-sensitive process, shaped by interactions between individuals and their environments. In the context of bereavement, resilience does not imply a linear return to a previous state, but rather an adaptive reorganization of meaning, identity, and functioning over time [13]. This process is inherently relational, relying on the availability of supportive networks, inclusive institutional practices, and opportunities for meaningful engagement. As such, students' capacity to adapt to loss depends not only on individual coping strategies, but also on the responsiveness of the educational environments in which they are embedded [8].

Mechanisms such as emotional expression and meaning-making play a central role in this adaptive process. Approaches such as expressive writing have been shown to support emotional processing by enabling individuals to articulate and reorganize their experiences [14]. However, these mechanisms are not purely individual or cognitive processes; they are shaped by broader social and cultural contexts that influence how grief is expressed, acknowledged, or suppressed. In higher education settings, where emotional expression is often implicitly constrained, opportunities for meaning-making may be limited, further complicating students' adaptation to loss.

Taken together, these perspectives suggest that bereavement should not be conceptualized merely as an individual psychological condition, but as a relational and educational phenomenon that intersects with core dimensions of academic life. This shift is important, as it repositions bereavement from the margins of student support toward a central consideration in the design of learning environments.

Despite these insights, significant gaps remain in the literature. Bereavement is rarely treated as a distinct educational phenomenon, and is instead often subsumed within broader mental health frameworks [5], [8]. This conceptual limitation restricts the development of targeted theoretical approaches that account for the intersection of grief with learning, engagement, and institutional participation. Furthermore, existing research frequently emphasizes generalized outcomes such as stress, anxiety, or depression [4], [6], without adequately capturing the relational, temporal, and meaning-oriented dimensions of bereavement.

Methodologically, there is a notable lack of qualitative, participatory, and longitudinal approaches capable of capturing the evolving nature of students' lived experiences of loss. Approaches such as thematic analysis provide important tools for exploring these experiences in depth and identifying patterns that are often overlooked in quantitative research [15]. However, such approaches remain underutilized in the context of bereavement in higher education.

At the same time, emerging research on AI-based mental health interventions has primarily focused on effectiveness and scalability, often overlooking experiential and context-dependent aspects of user engagement [16], [17]. While systematic reviews demonstrate the potential of chatbot-based and AI-driven tools to support mental well-being, their ability to address the emotional depth, ambiguity, and individuality of grief remains limited [18], [20].

This indicates a gap not only in technological development, but also in how such technologies are conceptually integrated within educational contexts. Current approaches tend to prioritize efficiency and accessibility, while insufficiently addressing meaning-making, relational dynamics, and contextual sensitivity.

From this perspective, this paper proposes a conceptual direction for bereavement support in higher education that emphasizes the need to understand grief as embedded within social, academic, and institutional relationships, while also acknowledging its temporal, cultural, and individual variability. Within such an approach, digital technologies—including AI-based systems—are not treated as standalone solutions, but as components of broader support models that combine technological accessibility with human-centered and institutional practices.

These considerations highlight the need to move beyond isolated interventions toward more integrated support ecosystems that align technological possibilities with the lived realities of students. At the same time, it is important to recognize that current approaches to digital mental health support often remain fragmented and overly technology-driven, prioritizing scalability and efficiency over depth, context, and relational meaning. As a result, there is a risk that bereavement—despite its complexity—continues to be addressed through generalized solutions that fail to capture its lived and evolving nature.

Participatory methodologies, including co-design and narrative-based approaches, offer significant potential to address these limitations by foregrounding students' voices and experiences. Such approaches enable a deeper understanding of how bereavement is experienced within academic environments and how support systems can be more effectively aligned with these experiences. In addition, they provide a foundation for integrating digital tools in ways that are context-sensitive and responsive, rather than purely technology-driven.

From a practical perspective, existing support systems remain fragmented and insufficiently tailored to the specific needs of bereaved students. Institutional responses are often reactive, standardized, and disconnected from students' everyday academic experiences. This fragmentation reflects a broader lack of integration between well-being initiatives, pedagogical practices, and technological solutions [9]–[11]. As a result, students may encounter support mechanisms that are difficult to access, insufficiently personalized, or misaligned with their needs.

Overall, these conceptual and empirical gaps point to the need for a more integrated and context-sensitive approach to bereavement in higher education. This highlights the need not only for new tools, but for a rethinking of how support is conceptualized within higher education systems. This includes recognizing grief as an inherent dimension of student experience, developing theories that capture its relational and temporal complexity, and designing support systems that combine human, institutional, and digital elements in a coherent and responsive manner.

5. CONCLUSIONS

Bereavement represents a significant yet still underexplored dimension of student experience in higher education, with important implications for engagement, participation, and sense of belonging. This review has highlighted the limitations of existing approaches, particularly the tendency to situate bereavement within broader mental health frameworks that do not fully capture its complexity, relational nature, and contextual specificity. As such, current perspectives risk oversimplifying grief and overlooking its deeper educational and experiential implications.

The findings suggest that more integrated perspectives are needed—ones that bring together educational, psychological, and technological insights. However, many digital approaches continue to prioritize accessibility and scalability at the expense of relational depth and contextual sensitivity, limiting their effectiveness in addressing bereavement. Hybrid models that combine digital and human support remain promising, particularly when designed to address both accessibility and emotional complexity.

At the same time, this review points to several important directions for future research. There is a clear need for more context-sensitive and participatory approaches that actively involve students in the design of support systems. Without such involvement, there is a risk that interventions remain disconnected from the lived realities they aim to address. Co-designed digital interventions, therefore, should not be viewed as optional enhancements, but as essential components of meaningful support development. In addition, further qualitative and longitudinal research is needed to better understand how bereavement unfolds over time and how it shapes students' academic engagement in diverse and evolving contexts.

More broadly, the persistence of fragmented and reactive support systems suggests that the challenge is not only technological, but structural. Existing institutional responses often fail to integrate well-being into the core fabric of academic life, instead treating it as a peripheral concern. This separation limits the effectiveness of even well-designed interventions and reinforces the marginalization of experiences such as bereavement within higher education.

Ultimately, recognizing bereavement as an integral dimension of student experience requires a fundamental shift in how higher education systems conceptualize support. Moving beyond reactive and fragmented responses toward more inclusive, flexible, and context-aware approaches is essential. Such a shift not only improves support for bereaved students, but also challenges institutions to reconsider the relationship between learning, well-being, and human experience. In this sense, addressing bereavement is not simply a matter of improving support services, but of rethinking the values and structures that underpin contemporary higher education. This work provides a foundation for future empirical studies and prototype development aimed at validating and operationalizing AI-supported bereavement interventions in higher education.

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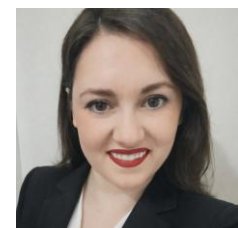
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