



Expressive writing as an adjunctive intervention for depression: A cognitive–emotional case study

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Abstract: This case study explores how expressive writing (EW) alleviates depressive symptoms while reshaping emotional state and self-cognition. The informant was a university student experiencing severe depression, changes in depressive symptoms as measured by Beck Depression Inventory-II. The student was assigned expressive writing texts with semi-structured interviews over a six-month period. After four sessions of expressive writing intervention, the student had a moderate reduction in symptom severity, with marked improvements in emotional state and self-cognition. Improvements indicated a shift from being dominated by negative emotions to a balanced emotional state and from self-denial to self-acceptance. These study findings suggest the alleviating effects of expressive writing on depression by revealing its emotional and cognitive mechanisms, which jointly contribute to improving college students' mental health and psychological well-being.

Keywords: Expressive writing; college students; depressive symptoms; self-cognition; emotional state

Introduction

Among various emerging approaches for treating depressive symptoms is expressive writing (Pennebaker & Beall, 1986; Slade et al., 2021). Expressive writing may facilitate emotional processing, strengthen emotional resilience, and reduce symptoms of psychological distress (Levová & Smith, 2024; Markowski et al., 2024; Robertson et al., 2023). However, expressive writing effects for treating mood disorders remain insufficiently understood (Fekete & Deichert, 2022; Krentzman et al., 2023). To address this gap, the present longitudinal case study explored expressive writing as a treatment for depressive symptoms.

Therapeutic effects of expressive writing

Expressive writing typically involves repeated writing about emotionally significant or stressful experiences (Pennebaker & Beall, 1986).

However, treatment effects vary with participant characteristics, writing conditions, comparison tasks, and outcome measures (Lai et al., 2023). Moreover, some frequently cited studies have focused on anxiety, mood, identity construction, or intervention feasibility rather than clinically assessed depression (Levová & Smith, 2024; Litten, 2022; Robertson et al., 2022; Thatcher, 2023). Nonetheless, this literature supports the potential value of expressive writing but does not establish a consistent therapeutic effect on depressive symptoms across populations.

Longitudinal design studies. Longitudinal evidence also suggests that emotional processing is associated with changes in depressive symptoms over time (Pinheiro et al., 2021). Moreover, expressive writing emotional and cognitive responses depend partly on the type of writing task employed (Heckerens et al., 2022). Robertson et al. (2023) demonstrated changes in depression, anxiety, and distress following expressive writing, but the study primarily evaluated outcomes before and after the intervention rather

than tracing how emotional and cognitive changes developed across individual writing sessions. Consequently, relatively little is known about whether emotional state and self-cognition improve simultaneously, fluctuate at different stages, or contribute differently to the alleviation of depressive symptoms.

Theoretical framework

The theoretical framework of this study is primarily based on the linguistic framework proposed by Tausczik and Pennebaker (2010). Tausczik and Pennebaker (2010) proposed that patterns of word use may provide linguistic indicators of individuals' psychological processes (Table 1). Specifically, they point out that the degree of depression can be reflected by the frequency of use of health words (such as “sick,” “medicine,” and “doctor”). In the present study, a relatively high frequency of health-related words was interpreted as indicating greater attention to illness and physical or psychological symptoms.

According to Tausczik and Pennebaker (2010), emotional states can be represented by the proportion of emotional words—a high proportion of negative emotional words (such as “sad” and “upset”) indicates that negative emotions dominate an individual's emotional state, representing a poorer emotional state. When the proportion of positive emotional words (such as “happy” and “joyful”) is greater than or equal to that of negative emotional words, it indicates that the individual is better able to control and regulate their emotions, resulting in a more balanced emotional state (Tausczik & Pennebaker, 2010). Similarly, Tausczik and Pennebaker (2010) suggested that self-cognition can be reflected through the use of cognitive words (such as “think,” “believe,” and “know”). They stated that the fewer cognitive words used, the less the writer considers the objective reasons behind negative events, and the more likely they are to engage in self-denial and self-criticism. The more cognitive words are used, the

Table 1. Linguistic features associated with depression

	Linguistic features	Examples
Depressive symptoms	Health words	Clinic, flu, pill
Emotional state	Negative emotional words & positive emotional words	Hurt, ugly, nasty, love, nice, sweet
Self-cognition	Cognitive words	Think, know, because, realize

more the writer can think about the reasons behind events, and the easier it is for them to achieve self-acceptance and forgiveness. These propositions are relevant to studies on expressive writing as a treatment for mood disorders.

The present study. This study employs a case study approach to explore the effects of expressive writing on depressive symptoms in a college student. Specifically, it is guided by the following research questions:

- 1) To what extent can expressive writing alleviate depressive symptoms?
- 2) How is the alleviation manifested in emotional state and self-cognition?

Method

Participant and baseline assessment

The participant was Anne (pseudonym), an undergraduate student in her early twenties at a university in China. She volunteered to participate after expressing interest in the intervention study. Anne reported experiencing limited emotional support and interpersonal difficulties during childhood and adolescence. She also reported persistent negative self-evaluation, emotional distress, and difficulties in social relationships. During university, she continued to experience academic and personal stress. Anne reported recurrent depressive symptoms since adolescence, including sleep difficulties and a history of self-harm. She reported having previously received a clinical diagnosis of depression with severe symptoms. Before enrolment in the study, she had experienced a serious psychological crisis and subsequently sought psychological support. A baseline BDI-II assessment indicated severe depressive symptoms.

Procedure. The study was approved by the Ethics Committee of Shandong University (No. ECSBMSS DU2023-1-85, October 2023). Anne consented to the study in writing and received a full explanation of the study's purpose, procedures, potential emotional discomfort, and confidentiality arrangements.

The intervention design

The expressive writing intervention for Anne followed the design framework proposed by Pennebaker and Beall (1986) (see Figure 1). The intervention lasted 40 days and comprised four sessions of expressive writing. Each session consisted of three consecutive writing days followed by a seven-day non-writing interval. Accordingly, writing

took place on Days 1–3, 11–13, 21–23, and 31–33, while Days 4–10, 14–20, 24–30, and 34–40 served as between-session or post-session intervals. The seven-day interval was included to reduce participant burden and provide time for emotional adjustment before the next writing session. The BDI-II assessment and semi-structured interview for each session were conducted immediately after the writing session on the third day of that session. Follow-up assessments and interviews were conducted at one, three, and six months after the completion of the 40-day intervention protocol.

Specifically, during each day's writing session, Anne was required to spend 20 to 25 min writing about life experiences that had had a significant impact on her, whether positive or negative. Each writing session was completed individually in a quiet and private room. Before each writing session, the first author gave the writing instructions and reminded Anne that there were no correct or incorrect responses and that the writing would not be evaluated for language accuracy or academic performance. Anne was asked to write continuously for 20–25 min about the assigned topic and to explore both her emotional responses and her thoughts about the experience. In terms of design, the themes of the four writing sessions progress gradually in psychological depth and breadth, evolving from the expression of emotions regarding life events to deeper reflection on core personal concerns and self-meaning (see Table 2).

During the writing period, the first author remained outside the room. Anne was permitted to pause or discontinue the session if she experienced substantial discomfort. Immediately after the third writing of each intervention session, Anne completed the BDI-II and participated in a semi-structured interview concerning her emotional reactions, perceptions of the writing experience, and any changes she had noticed in her symptoms and self-understanding. Her emotional condition was also checked after each session. If she reported marked distress, the researcher discussed whether the intervention should be paused and whether referral to the university psychological support service was needed. After the fourth session, the same BDI-II assessment and semi-structured interview procedures were repeated at the 1-, 3-, and 6-month follow-ups. Figure 1 presents the full intervention and assessment sequence.

Data collection

The data for this study were collected between June 2024 and February 2025, covering the intervention and follow-up phases. Three types of core data were collected: depression scale scores, expressive writing texts, and semi-structured interview records.

The first type of data collected in this study was depression scale scores from the Beck Depression Inventory-II (BDI-II). The scale contains 21 items and divides depression levels into four levels, with scores ranging from 0 to 63. It has demonstrated high reliability and good concurrent, content, and structural validity for screening depression in outpatient and student samples (Beck et al., 1996). The instrument has demonstrated good reliability and validity in psychiatric outpatient and college student

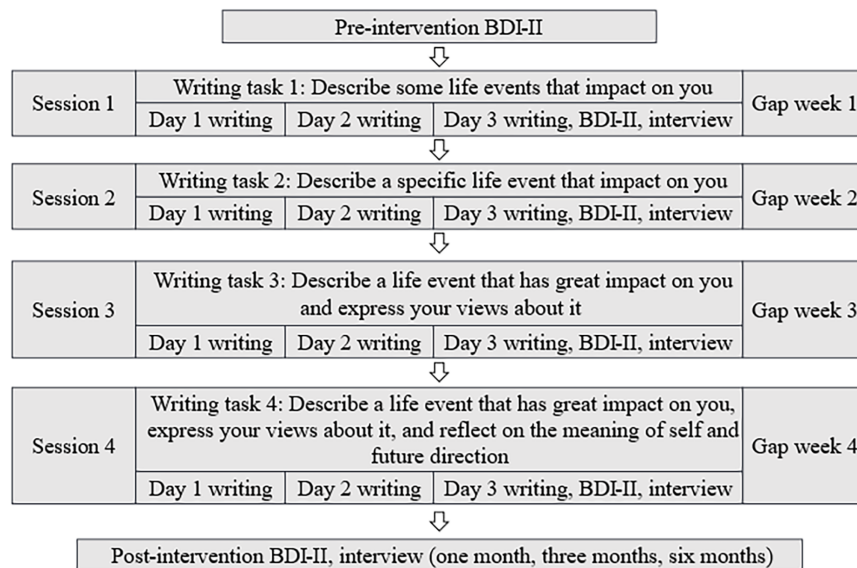


Figure 1. An overview of the research design

Table 2. Structure and contents of the writing intervention for Anne

Intervention sessions	Content of writing task
1	Describe one or more life events that have had a significant impact on you, including both positive and negative aspects of these experiences.
2	Describe a specific life event that has had a significant impact on you, including both the positive and negative emotions associated with the event.
3	Describe a specific life event that has had a significant impact on you, consider it from both positive and negative perspectives, and explain how you understand the event.
4	Describe a specific life event that has had a significant impact on you, consider it from both positive and negative perspectives, explain how you understand the event, and reflect on its meaning for your sense of self and future direction.

samples. Beck et al. (1996) reported high internal consistency in both psychiatric outpatient ($\alpha = 0.92$) and college student samples ($\alpha = 0.93$). Before the intervention began, the participant completed the scale and recorded the data in a quiet, private environment as an initial reference value. During the intervention, the scale was completed again on-site after each session, yielding a total of four BDI-II scores. After the intervention, follow-up measurements were conducted at one month, three months, and six months to obtain three follow-up scores. At this point, a total of eight BDI-II assessments had been conducted.

The second type of data collected in this study was expressive writing texts. In each intervention session, the participant wrote daily in a quiet, private room on a writing task related to the intervention. At the end of each session, the participant handed in the writing texts for that day. Three writing texts were collected in each intervention session, totaling 12 across the four sessions. Anne completed the assigned task on three consecutive days in each session. She was encouraged to write openly and continuously, but she could omit any details that she did not wish to disclose and could stop writing at any time.

The third type of data collected in this study was semi-structured interview records. The interview outline

was based on the design by Collins et al. (2022) and was adjusted to align with the research content. After each intervention session, one-on-one interviews were conducted in a quiet, private environment, each lasting 55–62 min, and the entire process was recorded. A total of four interviews were collected (total duration 5 h and 17 min). After the intervention, follow-up interviews were conducted at one month, three months, and six months, each lasting 52–64 min, for a total of three interviews (total duration 4 h and 23 min). A total of seven interview records were obtained, with a total recording time of 9 h and 40 min.

Data analysis

For depression scale scores, the study examined the effects of expressive writing on depressive symptoms, emotional states, and self-cognition. Changes in total scores were analyzed to assess depressive symptoms, in addition to the total BDI-II score; selected items conceptually related to emotional state and self-cognition were examined descriptively. Longitudinal comparisons of these scores provided insight into the intervention's impact over time.

For expressive writing texts, the study utilized Linguistic Inquiry and Word Count 2022 (LIWC-22). LIWC-22

processes each text by matching its words, word stems, phrases, and selected emoticons against its internal dictionary and calculating the percentage of total words assigned to each linguistic or psychological category (Boyd et al., 2022). LIWC automatically categorized health, emotional, and cognitive words, which were subsequently verified manually. Changes in word frequency were analyzed alongside writing content to evaluate intervention effects on depressive symptoms, emotional states, and self-cognition. LIWC provides official benchmarks for word frequencies (0–100), where 0 indicates very low usage and 100 very high usage. For reference, typical population values are 3.26 for positive emotion words, 1.93 for negative emotion words, 10.75 for health words, and 14.89 for cognitive words. Writing sessions were sequentially labeled as Anne-W-1 to Anne-W-4.

For semi-structured interview records, NVivo 12 software was used to conduct content analysis following Elo and Kyngäs's (2008) three-phase method: preparation (selecting data, familiarizing with content, defining units of analysis), organization (open coding, categorization, and abstraction into subcategories and main categories), and reporting (presenting and explaining the results). Primary codes were assigned to semantic units potentially related to the research objectives, and similar codes were integrated into higher-level categories. This approach enabled analysis of participants' responses to depressive symptoms, emotional states, and self-cognition, thereby assessing the intervention's effects. Interview records were sequentially labeled as Anne-I-1 to Anne-I-7 to ensure clarity and traceability.

Findings

Severe-to-moderate changes in Anne's depressive symptoms

As Figure 2 shows, after the expressive writing intervention, Anne's depression symptoms decreased significantly, from severe to moderate. This shows that expressive writing had a significant improvement in Anne's depression symptoms. It is worth noting that Anne's depression scale score did not decline continuously during the intervention but fluctuated slightly. The depression scale score showed that her depression score was 33 (severe) at the first measurement, followed by slight fluctuations and an overall downward trend, falling to 28 (moderate) at the end of the intervention. After entering the follow-up period, although the score increased slightly at certain stages, it basically showed a slow downward trend, falling to 24 points (moderate) at the six-month follow-up. This suggests that her symptoms were gradually relieved and continued to decline after the intervention ended.

Expressive writing texts further reflect changes in depressive symptoms. In her first writing, Anne used nearly 38.24% health words to directly describe her physical pain and sense of illness, such as "uncomfortable," "pain," "sick," and "doctor." Anne expressed her fear of medication: "I feel uncomfortable, sick, nauseous, and in pain all over every day... I need a doctor to treat me, but I'm afraid to take medicine..." (Anne-W-1). These contents indicate the severity of her symptoms at that time and her negative feelings about her condition.

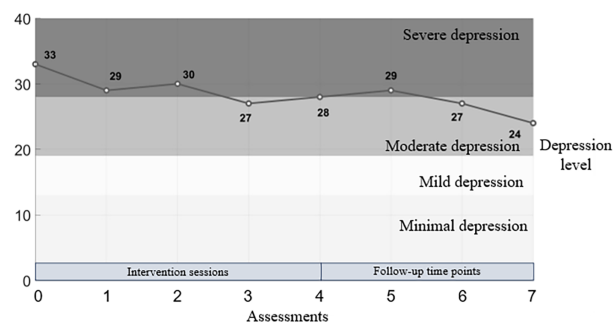


Figure 2. Changes in Anne's BDI-II scores across the intervention and follow-up periods

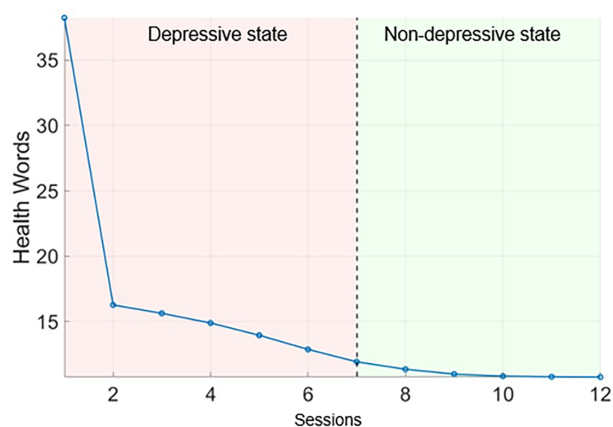


Figure 3. Changes in Anne's use of health words

Figure 3 shows that as the intervention progressed, the frequency of health words gradually decreased, and she began to mention her symptoms in a relatively light-hearted manner, such as "I haven't eaten those 'sweets' in a long time... Occasionally, I still have to go and talk to that handsome guy in white and have him fix my brain" (Anne-W-2), which shows that her attitude towards her symptoms has moderated. By the final writing session, health-related descriptions had largely disappeared, with only 10.71% left. She stated that she no longer feared these experiences and could actively express a desire to move forward: "I want to wave goodbye to these things I once feared and tell them to go away and stop bothering me" (Anne-W-4), reflecting an enhanced sense of control over her symptoms.

Semi-structured interview records align with the above changes. In the first interview, Anne described her depressive state as not improving, but rather worsening, frequently mentioning "breakdown" and "pain," and recalling: "After finishing the first day, I felt extremely distressed... I just wanted to tear up the notebook, throw away the pen, and cry my eyes out for a long time." (Anne-I-1) In the middle and late stages of the intervention, she mentioned that the frequency and duration of her symptoms had decreased significantly: "Before, it took me several days to recover, but now it's much better, about five minutes... The reaction has also been greatly reduced." (Anne-I-5). At the final interview, she described herself as "a patient about to be discharged" and said, "Although I was at school, I felt like I was always in the hospital; I was a patient. Now, even though I still feel a bit uncomfortable

sometimes, I feel like I've been discharged" (Anne-I-7). This shift indicates that she no longer views herself as a patient in a chronic state of illness but rather as someone capable of maintaining daily life despite the presence of symptoms.

Anne's depressive symptoms showed a shift from severe to moderate. The depression scale scores, expressive writing texts, and semi-structured interview records together indicate that expressive writing played a positive intervention role in this process.

Negative-to-balanced changes in Anne's emotional state

After the expressive writing intervention, Anne's emotional state gradually shifted from being dominated by negative emotions to a balanced emotional state, showing significant improvement. Consistent with changes in depression severity, the improvement in emotional state was not sudden but rather fluctuated over time. By analyzing the relevant items related to emotional state in the BDI-II, this study found that Anne's scores decreased to varying degrees, including sadness item, pessimism item, loss of pleasure item, suicidal thoughts or wishes item, and loss of interest item, which decreased from 3 (severe) to 1 (mild) or even 0 (no depression).

Before the intervention began, the scores for these items remained at 3 (severe) to 2 (moderate), indicating that Anne was frequently affected by related depressive symptoms. During the intervention, despite slight fluctuations in the scores for these items, the overall trend was downward; at the end of the intervention, all items had fallen to 2 (moderate) to 1 (mild), indicating that she was rarely troubled by these emotional symptoms. During the follow-up period, scores slightly rebounded but overall continued to decline slowly, reaching 2 (moderate) to 1 (mild) at six months. Among these, the most significant declines were observed in suicidal thoughts or wishes item and loss of pleasure item, which decreased from 3 (severe) to 0 (no depression), indicating that expressive writing was particularly effective in alleviating suicidal ideation and enhancing pleasure.

Expressive writing texts further reflect the impact of the expressive writing intervention on Anne's emotional state. As shown in Figure 4, the use of negative emotional words generally decreased across the writing sessions, whereas positive emotional words gradually increased, with the two types of emotional words becoming increasingly balanced over time. In her first writing, Anne used a large number of negative emotional words, focusing on describing the trauma and lasting impact of her parents' divorce: "I feel sad every day. I am afraid that my father will kill my mother. . . I feel heartbroken, fearful, and even want to vomit" (Anne-W-1). These words and descriptions indicate that she was dominated by negative emotions.

As the intervention progressed, the proportion of negative emotional words gradually decreased, and the use of positive emotional words increased abruptly. For example, in the third session of writing, she wrote, "I remember when my parents first got together, I was very happy every day. . . Perhaps, amidst all the misfortune in my life, there were also moments of happiness" (Anne-W-3). This shift from being dominated by negative emotions

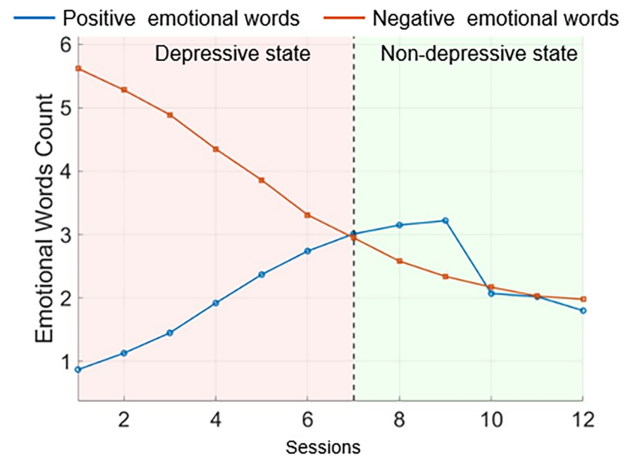


Figure 4. Changes in Anne's use of emotional words

to being able to recall and focus on positive emotions reflects an improvement in her emotional state. In the final session of writing, Anne used both negative and positive emotional words to describe her experiences: "I admit these events make me sad, but now I dare to talk about them, which makes me very happy. . . and I am very proud of myself" (Anne-W-4). This indicates that she can actively involve positive emotions in negative experiences, breaking the dominant negative emotional state and achieving a balanced emotional state.

The semi-structured interview records also illustrate how expressive writing manifested in Anne's emotional state. In early interviews, Anne described one session of writing as "an emotional rollercoaster of negative emotions" (Anne-I-1) and said, "I couldn't enjoy venting my emotions this time. I was in so much pain that I wanted to smash the room to pieces. . . I cried and screamed, feeling terrible" (Anne-I-2). This suggests that while expressive writing facilitated the release of negative emotions, it also triggered intense fluctuations in her emotional state, leaving Anne dominated by negative emotions and further impacting her emotional state.

In later interviews, Anne viewed expressive writing as a "detoxification and healing process" (Anne-I-5), believing that the more negative emotions she released, the better her overall emotional state would be. This reflects Anne's gradual escape from being dominated by negative emotions, using emotional release to improve her emotional state. During the follow-up phase, she referred to this process as "positive-negative balance" (Anne-I-6) and said, "When I write, I consciously control myself and stop after venting to a certain extent, then write about happy things, so that I don't feel carried away by my emotions" (Anne-I-7). This change shows that during the intervention process, she gradually mastered the patterns of emotional change and was able to consciously regulate and manage positive and negative emotions, thereby improving her emotional state and achieving a balanced emotional state.

Anne's emotional state during the expressive writing intervention mainly manifested as a shift from being dominated by negative emotions to achieving a balanced emotional state. The depression scale score, expressive writing texts, and semi-structured interview records

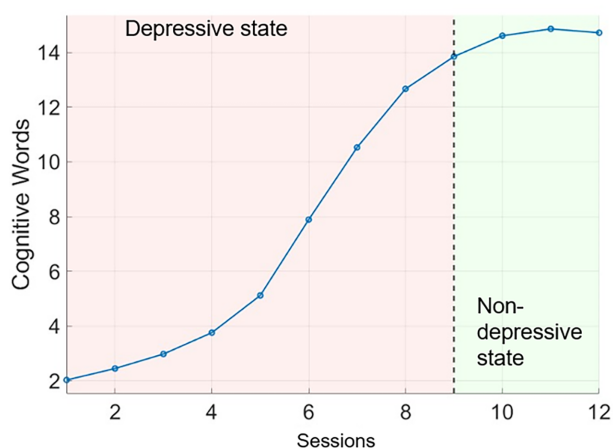


Figure 5. Changes in Anne's use of cognitive words

together indicate that expressive writing played a positive intervention role in this process.

Denial-to-acceptance changes in Anne's self-cognition

After the expressive writing intervention, Anne's self-cognition gradually shifted from self-denial to self-acceptance, showing significant improvement. Similarly, the improvement in self-cognition was not abrupt but fluctuated. By analyzing the relevant items related to self-cognition in the BDI-II, this study found that Anne's scores decreased to varying degrees, including past failures item, guilty item, punishment feelings item, self-dislike item, self-criticalness item, indecisiveness item, and sense of worthlessness item, which decreased from 3 (severe) to 1 (mild) or even 0 (no depression).

Before the intervention, most of these items were at 3 (severe), reflecting her long-term self-denial. During the intervention, some items decreased to 1 (mild) and continued to decrease. At the end of the intervention, all items decreased to 1 (mild) or 0 (no depression), indicating that her self-denial was significantly alleviated and shifted to self-acceptance. During the follow-up phase, scores for all items generally remained at 1 (mild) or 0 (no depression), with only occasional minor increases, and by six months, they had decreased to 1 (mild) or 0 (no depression). Among these, the self-dislike item and the self-criticalness item showed the greatest decreases, both dropping from 3 (severe) to 0 (no depression), indicating that expressive writing was particularly effective in improving these two symptoms.

Expressive writing texts further reflect this shift in self-cognition. As shown in Figure 5, Anne's use of cognitive words increased steadily across the writing sessions, suggesting that her writing increasingly involved reflection and cognitive processing of her experiences. In the first session of writing, Anne's use of cognitive words was relatively low, and her writing was filled with self-denial. She used a large number of derogatory terms to describe herself, such as "monster," "freak," and "scum" and wrote, "Perhaps I am a 'monster', 'freak', 'scum' who can only get into a prestigious university through grades" (Anne-W-1). At that time, she barely analysed her situation and mostly engaged in self-denial.

In the following writing, Anne began to explore the causes of her self-denial and gradually increased her use of cognitive words, such as "monster," "freak," and "scum" to reflect: "Why do I hate myself so much? I guess it's because I'm too cowardly. . . Maybe I'm afraid of failure, but I dare not blame others, so I only blame myself" (Anne-W-2). This change reflects a reduction in her self-denial and an attempt to understand herself. By the final session of writing, cognitive words had significantly increased, such as "feel," "believe," and "explore." She wrote, "I used to feel I had no value and believed death was the perfect escape. . . but now I want to explore and change my current life, embracing this imperfect version of myself" (Anne-W-4). Compared to her initial simple self-denial, Anne began to reflect on the causes of her situation, accept her failures, and attempt to address them. This stage of writing fully demonstrates Anne's improved self-cognition, shifting from self-denial to self-acceptance.

Semi-structured interview records also corroborate changes in self-cognition. In the first interview, Anne exhibited strong self-denial, describing herself as "useless" and "worthless," and stating, "Even if I write these things down, what's the point? I'm still so useless. . . What I hate most is myself" (Anne-I-1). This deep self-denial revealed her misguided self-cognition, which was reinforced by others' negative comments.

In the later stages of the intervention, she was able to critically reflect on her existing beliefs and explain her struggles from a new perspective, no longer engaging in pure self-denial: "Sometimes I feel stupid. . . and other times I feel smart, passionate, and capable of anything. I think both are part of me" (Anne-I-4). She understands that both the "smart" and "stupid" aspects of herself coexist and are important parts of who she is, indicating that she is beginning to accept herself. In the six-month follow-up interview, self-acceptance was further consolidated: "After writing these things down, I feel I have taken control of the situation. . . one should not be bound by their own perceptions. . . Humans can accept their flaws and love themselves" (Anne-I-7). She repeatedly emphasized the importance of "acceptance" and personal feelings, reflecting a positive shift in self-cognition from self-denial to self-acceptance.

Anne's self-cognition during the expressive writing intervention mainly manifested as a shift from self-denial to self-acceptance. The depression scale score, expressive writing texts, and semi-structured interview records together indicate that expressive writing played a positive intervention role in this process, clearly demonstrating that expressive writing has a significant and lasting effect in improving self-cognition.

Discussion

The findings of this study indicate a shift from predominantly negative emotional words toward a more balanced use of positive and negative emotional words, and an increase in cognitive-process words. Interview accounts provided further contextual evidence of a transition from symptom preoccupation to greater perceived control, from negative-emotion dominance to emotional balance, and

from self-denial to self-acceptance. These converging patterns suggest that the reduction in depressive symptoms was accompanied by corresponding emotional and cognitive changes, thus providing further empirical support for Tausczik and Pennebaker's (2010) framework.

This study presents an educationally meaningful portrait of expressive writing as an intervention. Findings suggest that expressive writing significantly enhanced Anne's emotional state and self-cognition. These findings reinforce the notion that writing fosters emotional integration and offer empirical support for incorporating expressive writing into formal pedagogy (Baikie et al., 2012). Previous research has criticized the overemphasis on standardized writing in college classrooms, which often leads to heightened anxiety and psychological distress among students (Hsu, 2025; Park, 2020; Wang & Wang, 2024). In contrast, expressive writing, characterized by openness and non-evaluative practices, offers students space to process emotions and explore identity (Flores, 2021; Litten, 2022; Zhang et al., 2025). Anne's engagement demonstrated the pedagogical potential of this form, particularly in humanities education, where such approaches are highly compatible.

Implications for research and practice

The present study also identified patterns that could not be fully explained by the original framework. During the early writing sessions, Anne reported a temporary increase in negative emotions and self-denial. Previous studies have mainly emphasized differences between pre-intervention and post-intervention outcomes (Corpas et al., 2023; Levová & Smith, 2024; Lu et al., 2025; Yee et al., 2025), whereas the repeated assessments used in the present study revealed short-term fluctuations within the intervention process. This finding suggests a possible extension of the conceptual framework by showing that changes in emotional and cognitive word use may fluctuate before a more stable pattern emerges. The possible reasons for these early fluctuations are discussed below.

The findings have practical implications for the use of expressive writing in Chinese higher education. Expressive writing may provide a relatively accessible adjunct to existing student support, particularly for students who are reluctant to seek formal psychological services. However, it should not be treated as a substitute for professional assessment or treatment, especially when students disclose self-harm, suicidal thoughts, or severe psychological distress. Universities that incorporate expressive writing into educational or student-support activities should therefore establish clear links with campus counselling services and referral procedures.

In classroom contexts, expressive writing should remain voluntary, private, and non-evaluative. Students should be allowed to omit sensitive details, stop writing, or choose not to submit the full content of their writing. Teachers should not be expected to diagnose or treat psychological problems; rather, their role should be to provide clear instructions, respect students' privacy, recognize indications of serious risk, and refer students to qualified professionals when necessary. Emotional support and prompts that encourage consideration

of multiple perspectives may help reduce early emotional rebound and excessive self-denial, but such guidance should be implemented within appropriate ethical and institutional safeguards.

Limitations of the study and future research directions

This study also has limitations. First, as a single-case study, the generalizability of the findings is inherently limited. Future research could include larger and more diverse samples to further examine the applicability and robustness of the findings. Second, the present study examined the effects of expressive writing primarily from the perspectives of emotional state and self-cognition, whereas depression is a multidimensional phenomenon. Future studies could incorporate a broader range of assessment dimensions to provide a more comprehensive understanding of the potential effects of expressive writing.

Conclusion

This study adopted a case study method to explore the effects of expressive writing to alleviate depressive symptoms from severe to moderate. These findings are significant in both theoretical and practical perspectives. Theoretically, this study expands the field of expressive writing research through a multidimensional indicator system, deepening understanding of how expressive writing could alleviate depressive symptoms from emotional and self-cognitive perspectives. Practically, these findings suggest that expressive writing could be incorporated into college mental health services as a low-cost, accessible intervention, with particular attention to changes in students' emotional states and self-cognition when developing individualized support programs.

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Availability of Data and Materials: The data that support the findings of this study are available from the Corresponding Author, Junju Wang, upon reasonable request.

Ethics Approval: The study was conducted in accordance with the Declaration of Helsinki and was approved by the Ethics Committee of Shandong University (No. ECSBMSSDU2023-1-85, October 2023). The participant provided written informed consent to participate in the study and to publish anonymized extracts from her expressive writing and interviews. ClinicalTrials.gov identifier: NCT07188519.

Conflicts of Interest: The authors declare no conflicts of interest.

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