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Development and Validation of an Acceptance and Commitment Therapy Program Based on an Exploration of Psychological Pain in the Midlife Crisis

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Mahmoud. Hakimnia[1*], Ahmad. Borjali[2], Zohreh. Rafezi[3], Abolghasem. Isamorad[2], Abdollah. Moatamedy[2]

1 PhD Candidate in Clinical Psychology, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran
2 Professor, Department of Clinical Psychology, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran
3 Associate Professor, Department of Clinical Psychology, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran
*Correspondence: Hakimnia.Mahmoud@gmail.com

ABSTRACT

This study aimed to explore the nature of psychological pain in the midlife crisis, develop an acceptance and commitment therapy program grounded in the resulting conceptual model, and evaluate its content validity, face validity, acceptability, and preliminary feasibility. A sequential developmental design was used. In the qualitative phase, 18 employed middle-aged adults living in urban areas of Tehran were selected through purposive and theoretical sampling and interviewed using in-depth semistructured interviews. Data were analyzed through constructivist grounded theory using open, axial, and selective coding and constant comparison. The resulting conceptual model was translated into therapeutic change objectives and a 10-session acceptance and commitment therapy protocol through directed content analysis and intervention mapping. Ten experts evaluated the program's necessity, relevance, clarity, face validity, and feasibility, while 10 members of the target population assessed its comprehensibility, cultural appropriateness, acceptability, and practical usability. Analysis of 385 initial codes identified existential grief as the core category of psychological pain in the midlife crisis. This phenomenon emerged from accumulated failures, unresolved developmental wounds, suppressed emotions, multidimensional midlife pressures, ineffective emotional relationships, and perceived closure of future opportunities. Existential grief was expressed through regret, persistent sadness, helplessness, and deep loneliness and was maintained by avoidant or temporarily relieving coping responses. Nine of the 10 sessions obtained acceptable content validity ratios of 0.80 or 1.00, whereas Session 10 obtained 0.40 and was subsequently revised. Item-level content validity indices ranged from 0.80 to 1.00, the scale-level content validity index was 0.93, and adjusted kappa coefficients ranged from 0.79 to 1.00. Expert and client-oriented face-validity means were both 4.20 out of 5, and overall feasibility ratings were 3.90 out of 5. Psychological pain in the midlife crisis can be conceptualized as existential grief for an unlived life and unrealized self, and the developed acceptance and commitment therapy program demonstrated satisfactory preliminary validity, acceptability, cultural relevance, and feasibility.

Keywords: Psychological pain; Midlife crisis; Existential grief; Acceptance and commitment therapy; Intervention development; Content validity; Feasibility

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Introduction

Midlife is a major developmental period in which individuals reassess their past achievements, present responsibilities, relationships, identities, and remaining possibilities. Although it is often represented as a stable stage marked by occupational maturity and established family roles, empirical and theoretical work suggests that midlife can also involve considerable psychological turbulence. Adults may confront a growing awareness of aging, mortality, unrealized aspirations, occupational stagnation, relational dissatisfaction, intergenerational responsibilities, and the narrowing of perceived future opportunities. These experiences do not necessarily produce a universal or inevitable crisis, but they can create a period of heightened vulnerability in which the individual's previous sources of meaning, identity, and psychological equilibrium become unstable. Contemporary investigations of midlife indicate that this period is multidimensional and heterogeneous, involving both developmental gains and experiences of loss, uncertainty, regret, and emotional strain (1, 2). The cultural history of the "midlife crisis" further shows that the concept is not merely a popular stereotype but reflects a broader demographic and cultural transformation in how adulthood, aging, personal fulfillment, and life-course expectations have been understood (3).

The experience of midlife crisis is shaped by the discrepancy between an individual's imagined life and actual life trajectory. At this stage, people may evaluate whether they have achieved the occupational, relational, financial, parental, social, or personal identities that they had anticipated earlier in life. When the discrepancy between the ideal self and lived self becomes salient, the individual may experience regret, disappointment, uncertainty, loss of agency, and a sense that important possibilities have become inaccessible. Large-scale research has identified a pronounced decline in psychological well-being during midlife in some populations, accompanied by increased distress, sleep problems, dissatisfaction, and other indicators of reduced psychological functioning (2). Qualitative evidence also demonstrates that midlife difficulties may involve changes in identity, bodily capacity, performance, social status, and perceived future direction. For example, former competitive athletes have described midlife health crises involving physical decline, loss of a valued athletic identity, difficulty adapting to changed capacities, and reconsideration of life priorities (4). These findings indicate that midlife crisis is best understood as a context-sensitive process involving the interaction of developmental transitions, life history, identity, relationships, health, and sociocultural expectations.

Relational factors may be especially important in determining how midlife strain is experienced. Intimate relationships can function as sources of emotional security, mutual recognition, and meaning, but they can also intensify distress when characterized by dissatisfaction, disconnection, or lack of intimacy. Research among middle-aged adults has shown that marital intimacy may play a mediating role in the relationship between midlife crisis and tendencies toward extramarital involvement, underscoring the importance of emotional and relational processes during this developmental period (5). Relational dissatisfaction may therefore represent more than a secondary consequence of midlife distress. It may form part of the context through which individuals interpret perceived failures, loneliness, unmet needs, and unrealized versions of themselves. Similarly, evidence linking midlife crisis with depression and psychological capital suggests that reduced hope, resilience, optimism, and perceived self-efficacy may be associated with greater emotional vulnerability during this period (6). These findings highlight the need to examine midlife crisis not only as a

set of symptoms but also as an experience involving meaning, identity, agency, and the individual's relationship with past and future.

A construct that may help explain the depth and intensity of this experience is psychological pain, also described as mental pain or psychache. Psychological pain refers to an intensely aversive subjective state involving inner suffering, emotional torment, shame, guilt, hopelessness, loneliness, perceived failure, loss of meaning, or a painful disruption in the person's relationship with self and life. Unlike a diagnosis-specific symptom, psychological pain can occur across multiple psychiatric and nonpsychiatric conditions. It has therefore been proposed as a transdiagnostic patient-reported outcome that may capture clinically significant suffering not fully represented by conventional measures of depression, anxiety, or symptom severity (7). This transdiagnostic perspective is particularly relevant to midlife crisis because the distress associated with this period may not correspond neatly to one diagnostic category. A person may simultaneously experience grief over unrealized possibilities, emotional exhaustion, relational loneliness, regret, diminished meaning, and a sense of entrapment without necessarily meeting criteria for a single disorder.

The clinical significance of psychological pain has been most extensively examined in research on suicidal ideation and behavior. Systematic reviews have consistently shown that mental pain is strongly associated with suicidal thoughts, suicide attempts, hopelessness, and the desire to escape unbearable internal suffering (8, 9). Bibliometric analysis of the psychache literature similarly indicates that psychological pain has become an increasingly important construct in the study of suicidal populations and that research has progressively moved toward identifying its mechanisms, measurement, and intervention implications (10). Although psychological pain should not be equated with suicidality, these findings demonstrate that persistent and unmanageable inner suffering can have profound consequences. They also suggest that interventions should address the person's relationship with psychological pain rather than focusing exclusively on the reduction of diagnostic symptoms.

Intervention research has begun to reflect this need. Cognitive therapy developed specifically from psychological pain theory has shown promising preliminary findings among suicidal patients with major depressive disorder, suggesting that interventions focused directly on unbearable psychological suffering may be clinically meaningful (11). A nurse-led solution-focused intervention has also been developed to address psychological pain among depressed inpatients, reflecting the growing recognition that mental pain can serve as a direct and legitimate target of care (12). These developments are important because they move psychological pain from a descriptive concept to an intervention-relevant construct. Nevertheless, most existing work has focused on severe depression or suicidal populations, and considerably less attention has been given to psychological pain arising within developmental crises such as midlife.

Recent qualitative work has proposed that psychological pain in midlife may be understood as a form of existential grief. In this formulation, individuals grieve not only identifiable external losses but also the unlived life, unrealized self, abandoned possibilities, missed relational opportunities, and meanings that have gradually eroded over time (13). Existential grief differs from conventional bereavement because its object may be symbolic, diffuse, or counterfactual. The individual may mourn the life that could have been lived, the self that might have emerged, or the future that no longer appears possible. Such grief may include regret, persistent sadness, helplessness, loneliness, loss of vitality, and a painful confrontation with the

discrepancy between the ideal and lived self. This formulation offers a potentially useful framework for understanding why midlife distress may persist even when no single external event fully accounts for it.

A treatment approach appropriate for this form of suffering must be capable of addressing painful thoughts, memories, emotions, identity narratives, value conflicts, and behavioral withdrawal without assuming that all distress can or should be eliminated. Acceptance and commitment therapy is particularly relevant in this regard. Acceptance and commitment therapy seeks to increase psychological flexibility through six interrelated processes: acceptance, cognitive defusion, present-moment awareness, self-as-context, values clarification, and committed action. Rather than attempting to directly suppress painful internal experiences or dispute every distressing thought, the approach aims to modify the individual's functional relationship with those experiences and support behavior guided by personally chosen values. Reviews have shown that acceptance and commitment therapy is applicable to anxiety and depression and can produce meaningful improvements across a range of emotional difficulties (14). Its emphasis on openness, awareness, and values-based engagement makes it theoretically compatible with the experience of regret, loss, identity disruption, emotional avoidance, and diminished meaning in midlife.

Acceptance and commitment therapy has also been applied to severe psychological pain and suicidal vulnerability. The ACT for Life framework conceptualizes suicidal behavior in relation to experiential avoidance, cognitive fusion, hopelessness, and disconnection from values, and proposes psychological flexibility as an important protective process (15). A randomized controlled trial among suicidal patients further demonstrated the clinical potential of acceptance and commitment therapy for reducing distress and improving relevant psychological processes (16). These findings do not imply that midlife psychological pain is equivalent to suicidal crisis, but they show that acceptance-based and values-oriented methods can be used when individuals experience intense suffering, entrapment, and difficulty finding meaningful directions for action.

The rationale for using acceptance and commitment therapy is also consistent with the broader movement toward process-based therapy. Process-based intervention science emphasizes identifying modifiable mechanisms that maintain suffering in a particular person and context, rather than relying solely on standardized protocols organized around diagnostic labels (17). From this perspective, a midlife intervention should not simply reproduce a generic acceptance and commitment therapy manual. It should identify the processes through which psychological pain is formed and maintained in midlife and then select therapeutic procedures that correspond to those processes. Cognitive fusion with narratives such as "it is too late," "my life has been wasted," or "I did not become who I should have been" may require defusion; avoidance of grief, regret, and painful memories may require acceptance and present-moment contact; overidentification with failure may require self-as-context; and behavioral paralysis, relational withdrawal, and meaninglessness may require values clarification and committed action. This process-based logic offers a strong foundation for developing a culturally and developmentally specific intervention.

However, the development of such an intervention requires more than theoretical compatibility. Complex psychological interventions should be developed through systematic, transparent, and iterative procedures that integrate evidence, theory, stakeholder perspectives, context, implementation considerations, and refinement before formal outcome evaluation. Updated Medical Research Council guidance emphasizes that intervention development should attend to context, mechanisms, uncertainties, stakeholder involvement,

implementation, and the dynamic relationship between intervention components and the systems in which they are delivered (18). Intervention mapping similarly provides a structured approach for translating identified problems and behavioral determinants into change objectives, intervention methods, practical applications, and implementation plans (19). These frameworks are especially valuable when developing an intervention from qualitative findings because they create a traceable pathway from lived experience to therapeutic targets and session content.

Developmental research must also distinguish carefully between intervention construction, validation, feasibility, and effectiveness. Pilot and feasibility studies are intended to examine questions such as acceptability, practicality, recruitment, adherence, delivery, measurement, and progression to later evaluation rather than to establish definitive therapeutic efficacy (20). Guidance for pilot work stresses the importance of explicit progression criteria and clear decisions about whether and how an intervention should proceed to subsequent testing (21). CONSORT guidance for randomized pilot and feasibility studies similarly emphasizes that preliminary work should not be interpreted as a definitive test of effectiveness (22). Accordingly, a rigorous developmental study should first establish whether the intervention is conceptually coherent, culturally appropriate, understandable, acceptable, and practically deliverable.

Content and face validation are central to this process. Expert assessment can determine whether intervention components are relevant, necessary, clear, theoretically consistent, and sufficiently representative of the intended construct. Systematic content-validity procedures, including the content validity ratio and content validity index, provide structured quantitative support for judgments that might otherwise remain informal (23). Nevertheless, numerical indices should be interpreted alongside qualitative feedback because an item or session may meet a quantitative threshold while still requiring revision for clarity, density, sequencing, cultural appropriateness, or practical implementation. In addition, the intended users of an intervention should evaluate whether its language, examples, metaphors, exercises, and materials are understandable and relevant to their lived experience.

Feasibility and implementation outcomes also require explicit assessment. Acceptability, appropriateness, and feasibility are conceptually distinct implementation outcomes, and reliable measures have been developed to assess each construct (24). Examining these outcomes during development can reveal whether therapists understand the protocol, whether intended users can complete exercises, whether the session sequence is manageable, and whether the intervention can be implemented under routine clinical conditions. Such evaluation is particularly important for a midlife intervention because participants may face occupational pressures, family obligations, financial constraints, caregiving responsibilities, limited time, emotional exhaustion, and variable readiness to engage with painful material.

Despite growing research on midlife crisis, psychological pain, acceptance and commitment therapy, and complex intervention development, an important gap remains. Midlife psychological pain has rarely been explored as a culturally situated process and then translated systematically into a validated intervention. Existing studies have separately examined the complexity of midlife, relational and psychological correlates of midlife crisis, psychache in clinical and suicidal populations, and acceptance-based treatment processes, but these literatures have not been sufficiently integrated into a developmentally specific program grounded in the lived experience of middle-aged adults (1, 5, 10, 14). Moreover, a culturally responsive program for Iranian middle-aged adults must account for intergenerational responsibilities, family-centered

expectations, economic strain, culturally shaped ideals of success, emotional restraint, marital dynamics, and the social meanings of aging and unrealized achievement.

Therefore, the aim of this study was to explore psychological pain in the midlife crisis, develop an acceptance and commitment therapy program grounded in the resulting qualitative model, and evaluate its content validity, face validity, acceptability, and preliminary feasibility from the perspectives of experts and intended users.

Methods and Materials

Study Design and Participants

This study employed a sequential, multistage developmental design to formulate an acceptance and commitment therapy program grounded in an empirical exploration of psychological pain during the midlife crisis. The research was limited to two principal stages: a qualitative investigation of psychological pain in midlife and the systematic development, validation, and preliminary feasibility assessment of the treatment program. The study did not include a clinical trial, a control group, pretest–posttest comparisons, or any evaluation of therapeutic effectiveness. The first stage was conducted using constructivist grounded theory to develop a context-sensitive conceptual model of the conditions, processes, components, coping responses, and consequences associated with psychological pain during the midlife crisis. This approach was selected because the phenomenon required an exploratory and process-oriented examination capable of capturing the meanings participants assigned to their experiences within their personal, occupational, relational, developmental, and sociocultural contexts.

The population for the qualitative stage consisted of employed middle-aged adults residing in Tehran Province who were between 40 and 65 years of age, held at least a bachelor's degree, and reported a meaningful subjective experience of midlife crisis and psychological pain. Participants were initially recruited through purposive sampling from counseling and psychotherapy centers, professional social networks, and referrals made by therapists. As data analysis progressed, theoretical sampling was employed to elaborate emerging categories, examine contrasting experiences, clarify relationships among concepts, and strengthen the developing conceptual model. Variation in gender, marital status, occupational background, interpersonal circumstances, and the perceived intensity of psychological pain was considered to obtain rich and diverse accounts of the phenomenon.

Eligibility criteria included being between 40 and 65 years of age, residing in Tehran Province, being employed at the time of the study, possessing at least a bachelor's degree, reporting experiences consistent with a midlife crisis and psychological pain, being willing and able to participate in an in-depth interview, and providing informed consent. Individuals were excluded when they were receiving regular concurrent psychotherapy during the interview period, reported severe substance misuse within the preceding six months, were unable to continue the interview, or chose to withdraw from participation. Recruitment, interviewing, and analysis continued concurrently until theoretical saturation was achieved. No substantively new codes or categories emerged after the sixteenth interview. Two additional interviews were conducted to examine the stability and sufficiency of the emerging categories, resulting in a final qualitative sample of 18 participants.

The second stage was a developmental and validation study in which the grounded conceptual model was translated into a structured acceptance and commitment therapy program. Intervention development was guided by the updated Medical Research Council framework for complex interventions and the intervention-mapping approach. These frameworks were used to formulate the program theory, identify change objectives, connect qualitative findings with relevant therapeutic processes, develop session content, and refine the intervention through iterative review. The treatment-development team consisted of the principal researcher, two supervisors, and two academic advisors with expertise in clinical psychology, qualitative methodology, psychological intervention development, existential psychotherapy, adult development, and acceptance and commitment therapy.

Content validation was conducted with a purposively selected panel of 10 experts in clinical psychology, third-wave therapies, acceptance and commitment therapy, developmental crises, grief, and midlife psychological problems. Expert recruitment was supplemented by chain referral to achieve sufficient diversity of theoretical and clinical perspectives. Face validation was also conducted with 10 middle-aged adults whose demographic and experiential characteristics resembled those of the intended users. These individuals reviewed the client-oriented materials for comprehensibility, linguistic and cultural appropriateness, relevance to midlife experiences, readability, acceptability, and practical usability. A limited single-group pilot was subsequently conducted with approximately 10 to 12 eligible middle-aged adults to assess implementation conditions, session scheduling, comprehensibility, acceptability, homework burden, treatment-manual usability, and protocol fidelity. This pilot was exclusively developmental and feasibility-oriented and was not designed to estimate therapeutic outcomes or effectiveness.

Data Collection

The principal data-collection instrument in the qualitative stage was a researcher-developed semi-structured interview guide. The guide was designed to explore the experiential, emotional, cognitive, bodily, interpersonal, temporal, identity-related, and existential dimensions of psychological pain within the context of midlife. Its development began with a conceptual review of psychological pain, midlife transitions, loneliness, meaning, grief, identity disruption, psychological suffering, and acceptance and commitment therapy. Open-ended, flexible, nonleading questions were then formulated to examine how psychological pain emerged, how it was understood and expressed, which contextual factors intensified or maintained it, how it influenced relationships and everyday functioning, and what strategies participants used to respond to it.

The interview guide contained introductory questions intended to establish rapport, central questions addressing the experience and development of psychological pain, and follow-up prompts used to clarify meanings, obtain concrete examples, explore relationships among experiences, and deepen emerging analytical categories. Three specialists in clinical psychology and qualitative methodology reviewed the initial guide for conceptual coverage, clarity, sequencing, and sensitivity. Three pilot interviews were then conducted with eligible volunteers to evaluate comprehensibility, conversational flow, emotional safety, and the appropriateness of question order. Based on the pilot feedback, the guide was reorganized according to a funnel structure, beginning with broad and less threatening questions before progressing toward more

sensitive experiences. The revised guide was subsequently reviewed with two additional volunteers before being finalized.

Individual interviews were conducted either face-to-face in a private counseling environment or online through a secure audiovisual platform. Each interview lasted approximately 50 to 90 minutes. With participants' permission, interviews were audio-recorded and transcribed verbatim. Field notes were completed immediately after each interview to document contextual information, nonverbal responses, interactional features, preliminary interpretations, and emerging analytical questions. Identifying information was removed or replaced with participant codes, and audio files, transcripts, and field notes were stored in password-protected and access-restricted digital locations.

Materials used during treatment development included the grounded conceptual model, a change-objective matrix, a treatment logic model, draft session protocols, therapist instructions, experiential exercises, metaphors, homework assignments, and client worksheets. Content-validation tools comprised researcher-developed expert feedback forms, a content validity ratio form, a content validity index form, an expert face-validity questionnaire, and an expert feasibility questionnaire. Client-oriented assessment forms examined clarity, cultural relevance, readability, acceptability, practicality, homework burden, and the perceived usability of exercises and worksheets.

The pilot stage used a session-process recording form, a protocol-fidelity checklist, and brief participant-reported implementation measures. The process form documented attendance, actual session duration, homework completion, obstacles to completing exercises, schedule changes, and implementation difficulties. The fidelity checklist recorded whether the principal objectives, experiential exercises, homework review, new assignments, and essential therapeutic procedures specified for each session were delivered. At the end of the pilot, participants completed the Acceptability of Intervention Measure, Intervention Appropriateness Measure, and Feasibility of Intervention Measure, together with open-ended questions addressing unclear, difficult, culturally incongruent, emotionally sensitive, or impractical components.

Data Analysis

Qualitative data were analyzed concurrently with data collection using constructivist grounded theory. Interview transcripts were first examined through line-by-line initial coding, with codes remaining as close as possible to participants' language and intended meanings. Constant comparison was used to examine similarities, differences, recurring patterns, contradictory cases, and emerging conceptual properties across interviews. During focused coding, analytically significant and frequently recurring initial codes were selected, compared, integrated, differentiated, and organized into broader subcategories and categories. Theoretical coding was then used to examine relationships among the principal categories and integrate them into a coherent, context-dependent conceptual model of psychological pain during the midlife crisis. MAXQDA version 24 was used to organize transcripts, manage codes, document category development, compare interviews, and maintain analytical and reflexive memos.

Methodological rigor was strengthened through continuous reflexive memo writing, documentation of analytical decisions, peer review by specialists in qualitative methodology and clinical psychology, active examination of discrepant cases, and participant review of selected interpretations and the preliminary

conceptual framework. These procedures were used to increase credibility, dependability, confirmability, and interpretive transparency.

For intervention development, directed content analysis was used to translate the grounded conceptual model into change objectives and therapeutic themes. Core categories, subcategories, conceptual relationships, and maintaining processes were treated as units of analysis. Each component was reformulated in terms of the psychological process or functional relationship that the intervention needed to modify. Functionally similar change objectives were clustered and aligned with acceptance, cognitive defusion, present-moment awareness, self-as-context, values clarification, and committed action. Draft intervention components were repeatedly reviewed by the research team for theoretical coherence, cultural relevance, clinical usability, and traceability to the qualitative model.

Quantitative validation data were analyzed descriptively. The content validity ratio was calculated for each major treatment component based on expert judgments of essentiality. Item-level and scale-level content validity indices were calculated from expert ratings of relevance and clarity, and adjusted kappa coefficients were used to examine agreement beyond chance. Means, standard deviations, ranges, frequencies, and percentages were calculated for face-validity, feasibility, acceptability, appropriateness, attendance, retention, homework adherence, session duration, and fidelity data. Open-ended expert and participant feedback was analyzed through conventional qualitative content analysis to identify content-related, structural, linguistic, cultural, formatting, and implementation-related revisions. Quantitative and qualitative evidence was integrated to determine whether each component should be retained, clarified, simplified, reorganized, or otherwise refined. No inferential analyses related to treatment effectiveness were conducted.

Findings and Results

The qualitative phase included 18 employed middle-aged adults residing in urban areas of Tehran. The participants comprised 12 women (66.7%) and 6 men (33.3%), with ages ranging from 40 to 57 years and a mean age of 45.5 years. Thirteen participants were married (72.2%), three were separated or divorced (16.7%), and two were single (11.1%). Twelve participants had children (66.7%), whereas six had no children (33.3%). All participants had university education: eight held bachelor's degrees (44.4%), seven held master's degrees (38.9%), and three held doctoral degrees (16.7%). All were employed in managerial, professional, educational, counseling, engineering, social-service, or other specialized occupations. The interviews lasted between 46 and 62 minutes, with a mean duration of 53 minutes. All participants described themselves as experiencing a midlife crisis and met the study's eligibility criteria regarding employment, education, residence, subjective psychological pain, and willingness to participate in an in-depth interview.

The expert-validation panel consisted of 10 specialists in psychology or counseling. Eight experts held master's degrees and two held doctoral degrees. Their clinical experience ranged from 5 to 20 years. Three experts reported a high level of familiarity with acceptance and commitment therapy, six reported moderate familiarity, and one reported limited familiarity. Regarding grief, developmental crises, and midlife concerns, four experts reported high familiarity, four reported moderate familiarity, and two reported limited familiarity. This heterogeneity was intentionally maintained to ensure that the program was

evaluated not only by specialists closely aligned with acceptance and commitment therapy but also by experienced clinicians with broader therapeutic orientations.

The client-oriented face-validation phase included 10 middle-aged adults aged 40 to 55 years, with a mean age of 44.4 years. Six participants were men and four were women. Two held bachelor's degrees, five held master's degrees, and three held doctoral degrees. These participants were selected because their age and educational characteristics were similar to those of the intended users of the program and because they were able to examine the written materials, exercises, metaphors, homework instructions, and client worksheets in detail. Their participation was limited to the assessment of clarity, cultural relevance, usability, acceptability, and implementation requirements; no therapeutic outcome or effectiveness evaluation was conducted.

Line-by-line initial coding of the 18 interview transcripts generated 327 preliminary codes. Repeated examination of the transcripts, field notes, emotional shifts, pauses, narrative patterns, and contextual meanings expanded the coding framework to 385 initial codes. These codes represented emotional, cognitive, interpersonal, developmental, behavioral, temporal, and existential dimensions of psychological pain. Through constant comparison, conceptually related codes were grouped into preliminary categories. Table 1 presents the principal categories derived from open coding and illustrates their relationship to the emerging conceptual model.

Table 1. Principal Categories Derived from Open Coding

Preliminary category	Constituent concepts and representative initial codes	Approximate number of codes	Illustrative participant statement	Preliminary analytical position
Ideal–reality discrepancy	Unfulfilled dreams, collapse of imagined futures, failure to reach desired positions, discrepancy between expected and lived life	15	"I did not reach what I was looking for." (P1)	Accumulated failures and erosion of the ideal self
Failure to realize existential potential	Occupational stagnation, unrealized abilities, lack of social impact, financial disappointment	14	"I have not left anything important behind in the world." (P3)	Developmental and identity-related failure
Existential anxiety	Fear of death, fear of the future, uncertainty, insecurity, awareness of limited remaining time	18	"There is that uncertain future ahead." (P1)	Threatened temporality and restricted future horizon
Ineffective emotional regulation	Suppressed anger, anger toward oneself, anger toward others, emotional numbness, inability to express grief	15	"Sometimes I want to fight with someone in the street just to empty myself." (P12)	Emotional suppression and avoidance
Intergenerational burden	Responsibility for children, care of aging parents, family expectations, simultaneous obligations	9	"Everything is on my shoulders." (P16)	Contextual pressures of midlife
Ineffective emotional relationship	Feeling unseen by a spouse, lack of empathy, emotional rejection, relational dissatisfaction, absence of intimacy	65	"I have been sleeping in my daughter's room for years." (P5)	Intervening condition intensifying loneliness
Collapse of the meaning system	Loss of purpose, erosion of personal ideals, diminished motivation, meaninglessness, existential emptiness	21	"I keep asking myself how meaningless life is." (P6)	Meaning crisis associated with existential grief
Developmental wounds and emotional deprivation	Childhood rejection, humiliation, comparison, neglect, lack of affirmation, family conflict	27	"I was repeatedly rejected, and there was a great deal of deprivation with it." (P2)	Historical and developmental vulnerability
Regret and unlived life	Irreversible choices, missed opportunities, delayed decisions,	42	"I wish I had overcome my fears sooner." (P18)	Experiential core of existential grief

	self-blame, desire to return to an earlier age			
Deep loneliness	Feeling misunderstood, lack of confidants, emotional isolation despite social contact, relational disconnection	39	"No one understands my loneliness." (P16)	Interpersonal dimension of psychological pain
Helplessness and behavioral paralysis	Indecision, inability to change, loss of agency, feeling trapped, withdrawal, hopelessness about repair	31	"I do not know how to get out of this state." (P13)	Cognitive-behavioral dimension of existential grief
Psychological exhaustion	Loss of vitality, low motivation, emotional depletion, chronic pressure, inability to continue existing patterns	29	"Sometimes I ask myself why I should get out of bed." (P16)	Consequence of the continuing cycle of pain

The open-coding findings indicated that psychological pain in the midlife crisis was not limited to sadness, anxiety, or dissatisfaction. Participants described a broader experience involving failed life narratives, unfulfilled capacities, unresolved developmental injuries, relational deprivation, restricted future possibilities, and the progressive erosion of meaning. The most densely represented category was ineffective emotional relationship, suggesting that the experience of being unseen, misunderstood, or emotionally unsupported was a major context in which psychological pain intensified. Regret, deep loneliness, helplessness, and psychological exhaustion also appeared repeatedly across interviews.

The initial categories further demonstrated that participants' distress was organized temporally. The past was experienced through regret and unresolved injury, the present through exhaustion, relational dissatisfaction, and suspended decision-making, and the future through anxiety, perceived closure of opportunities, and limited possibilities for repair. These findings provided the conceptual basis for examining the relationships among causal conditions, contextual pressures, intervening conditions, coping responses, and consequences during axial and selective coding.

Axial coding reorganized the 385 initial codes into higher-order categories and clarified their functional relationships. Constant comparison showed that accumulated failures, unresolved developmental injuries, and chronically suppressed emotions formed the historical and causal foundation of psychological pain. These experiences operated within the contextual pressures of midlife and were intensified by ineffective emotional relationships and the perception that opportunities for meaningful change had become limited. Selective coding subsequently identified existential grief as the central category capable of integrating the principal dimensions of the data. Table 2 summarizes the final conceptual organization.

Table 2. Final Conceptual Model of Psychological Pain in the Midlife Crisis

Analytical component	Main category	Principal components	Approximate number of codes	Function within the conceptual model
Causal conditions	Accumulated failures, unresolved injuries, and suppressed emotions	Collapsed life scenarios, discrepancy between the ideal and lived self, developmental wounds, chronic anger and grief	85	Created the historical and developmental foundation for existential grief
Contextual conditions	Multidimensional pressures of midlife	Intergenerational responsibilities, economic strain, occupational exhaustion, family duties, cultural expectations	55	Reduced psychological capacity and intensified the effects of earlier vulnerabilities
Intervening conditions	Ineffective emotional relationships and crisis of opportunity	Feeling unseen, absence of emotional intimacy, limited time, perceived irreversibility, belief that it was too late to begin again	70	Influenced the intensity, persistence, and subjective meaning of psychological pain
Central phenomenon	Existential grief	Regret, persistent sadness, helplessness, and deep loneliness	110	Integrated the principal experiential dimensions of psychological pain

Actions and coping strategies	Maladaptive and temporarily relieving responses	Isolation, emotional avoidance, fantasy, overworking, alcohol use, overeating, distraction, minor creative or spiritual activities	45	Provided temporary relief but generally failed to interrupt the cycle of pain
Consequences	Psychological exhaustion and crisis of meaning	Loss of vitality, diminished agency, entrapment, meaninglessness, severe hopelessness, and self-harm-related thoughts or histories in some accounts	50	Represented the cumulative consequences of unresolved existential grief

The central category, existential grief, referred to grief for an unlived life, lost opportunities, unrealized versions of the self, unfulfilled relationships, and eroded meanings. It emerged from the perceived discrepancy between the ideal self and the lived self and was intensified by awareness of limited remaining time. Existential grief was experienced through four interconnected dimensions: regret, persistent sadness, helplessness, and deep loneliness. Regret involved repetitive comparison between actual life and alternative life paths. Persistent sadness reflected prolonged mourning for accumulated symbolic losses. Helplessness represented diminished agency and the belief that meaningful change was no longer possible. Deep loneliness referred to emotional invisibility and disconnection, including loneliness experienced in the presence of spouses, family members, colleagues, or other social contacts.

The model was cyclical rather than linear. Participants frequently responded to psychological pain through emotional suppression, withdrawal, fantasy, excessive work, behavioral distraction, continuation of ineffective relationships, or other short-term relief strategies. Although some activities such as reading, creative work, spirituality, or employment temporarily reduced distress, they did not consistently transform participants' relationships with grief, regret, identity, or meaning. Consequently, psychological exhaustion, loss of vitality, entrapment, and meaning crisis reinforced the original perception that life had been irreversibly missed. Theoretical saturation was reached after the sixteenth interview. The final two interviews enriched and confirmed existing categories but did not generate a new category or alter the structure of the model.

The qualitative model was translated into a structured acceptance and commitment therapy program through directed content analysis. Components of existential grief were reformulated as change objectives and aligned with acceptance, cognitive defusion, present-moment awareness, self-as-context, values clarification, and committed action. The resulting program was reviewed by experts and intended users. Table 3 presents the principal quantitative validation findings.

Table 3. Summary of Content Validity, Face Validity, and Preliminary Feasibility Findings

Validation domain	Indicator	Result	Acceptance criterion	Interpretation
Structural necessity of sessions	CVR, Sessions 1, 2, 5, and 9	1.00	0.62 minimum; 0.80 conservative criterion	Complete expert agreement
Structural necessity of sessions	CVR, Sessions 3, 4, 6, 7, and 8	0.80	0.62 minimum; 0.80 conservative criterion	Acceptable under both criteria
Structural necessity of sessions	CVR, Session 10	0.40	0.62 minimum	Required conceptual clarification and revision
Content relevance and clarity	I-CVI range across 11 items	0.80–1.00	0.78 or higher	All items acceptable
Overall content validity	S-CVI/Ave	0.93	0.90 or higher	Strong overall content validity
Agreement beyond chance	Adjusted kappa range	0.79–1.00	Greater than 0.74	Excellent agreement
Expert face validity	Overall mean	4.20 out of 5	Greater than 3.50	Acceptable
Initial expert feasibility	Overall mean	3.90 out of 5	Greater than 3.50	Acceptable, with implementation refinements

Expert overall feasibility judgment	Mean rating	8.60 out of 10	Descriptive criterion	High perceived feasibility
Predicted success in a routine counseling center	Mean rating	8.20 out of 10	Descriptive criterion	High expected implementability
Client-oriented face validity	Overall mean	4.20 out of 5	Greater than 3.50	Acceptable to desirable
Client-oriented feasibility and acceptability	Overall mean	3.90 out of 5	Greater than 3.50	Acceptable, with practical modifications

The content-validity findings showed strong expert agreement regarding the theoretical and clinical necessity of most program sessions. Sessions addressing case formulation, acceptance, the reorganization of the relationship with unlived-life grief, and meaning integration obtained a CVR of 1.00. Sessions addressing cognitive defusion, activated memories and regret, self-as-context, values, relational action, and related change processes obtained CVR values of 0.80. Session 10 obtained a CVR of 0.40. Qualitative comments indicated that experts did not regard its content as inappropriate; rather, they viewed consolidation and maintenance as less independently essential than the sessions introducing primary therapeutic processes. The session was therefore retained but reconceptualized as a distinct consolidation, generalization, maintenance-planning, and relapse-prevention session. Its interval from Session 9 was extended to two weeks to allow participants to apply the program's processes in everyday life before final review.

All 11 content-validity items exceeded the minimum I-CVI criterion, with values ranging from 0.80 to 1.00. The overall S-CVI/Ave was 0.93, and adjusted kappa coefficients ranged from 0.79 to 1.00, indicating that the observed agreement was not attributable to chance. The lowest, although still acceptable, content-validity scores concerned the adequacy of session timing and the ability of trained therapists with different levels of experience to implement the program. These quantitative findings converged with experts' qualitative feedback regarding the density of Sessions 3 to 6, the need for more explicit therapist instructions, and the importance of distinguishing values-based action from pressure to compensate for the past.

Expert face-validity ratings were favorable, with an overall mean of 4.20 out of 5. The clearest strengths were the professional organization of the program, the clarity of the written therapist guide, and the coherence of the intervention narrative. However, qualitative comments clarified that readable written instructions did not automatically ensure operational sufficiency for therapists who were less familiar with acceptance and commitment therapy. Accordingly, the therapist manual was revised to include more detailed step-by-step procedures, sample therapist–client dialogues, explicit timing guidance, clearer distinctions between acceptance and resignation, instructions for cognitive defusion, emotional anchoring, management of intense grief, and guidance concerning the appropriate timing of values-based action.

Client-oriented face validity also produced an overall mean of 4.20 out of 5. The strongest ratings concerned the relevance of the topics to actual midlife problems, the organization and readability of the materials, and the cultural fit of examples. The lowest item mean was 3.80 for the clarity and concreteness of metaphors and examples. Participants indicated that some experiential exercises required oral explanation and demonstration by the therapist. In response, metaphors were simplified, examples were made more closely related to the everyday lives of adults aged 40 to 65 years, and sample implementation of major exercises was added to the therapist guide.

Client-oriented feasibility and acceptability obtained an overall mean of 3.90 out of 5. Participants considered the session sequence and continuation of the program feasible, but reported that limited time, work obligations, variable motivation, emotional exhaustion, and the perceived burden of some homework assignments could interfere with adherence. The revised version therefore included shorter initial homework assignments, a graded increase in exercise difficulty, a minimum exercise option for periods of low motivation or limited time, simplified worksheets, in-session practice before homework assignment, and limited individual adaptation without changing the process objective of each session.

The final program consisted of 10 individual sessions, each lasting approximately 60 minutes. The sequence followed a spiral-focus structure: all principal processes remained active throughout the program, but the dominant focus shifted from formulation and recognition of avoidance, to acceptance and defusion in relation to existential grief, and finally to values-guided action, relational engagement, meaning integration, and maintenance. Table 4 presents the final protocol.

Table 4. Final Acceptance and Commitment Therapy Program Based on Psychological Pain in the Midlife Crisis

Session	Title	Principal therapeutic focus	Main change objective	Core procedures and exercises
1	Formulating Psychological Pain and Introducing the Treatment Rationale	Functional formulation of psychological pain and initial reduction of fusion with painful narratives	Establish a shared understanding of existential grief and begin observing stories of failure, lateness, and unlived life as mental events	Treatment rationale; functional formulation; brief present-moment exercise; passengers-on-the-bus metaphor; labeling dominant life stories
2	Acceptance and Functional Analysis of Avoidance	Experiential and behavioral avoidance	Identify the short-term relief and long-term costs of avoidance and increase willingness to remain with difficult emotions	Avoidance-cycle mapping; cost–benefit analysis of control strategies; emotional mindfulness; body scan; making space for sadness; distinction between acceptance and resignation
3	Defusion from Stories of Lateness and Internalized Demands	Cognitive fusion with "too late," "if only," "should," and "the life I should have had" narratives	Reduce the behavioral dominance of rigid self-narratives and culturally internalized demands	Thought labeling; repetition of "should" statements; naming recurring stories; functional examination of rigid verbal rules; defusion exercises
4	Working with Activated Experiences and Past-Oriented Regret	Activated memories, regret, and repetitive counterfactual thinking	Increase regulated contact with memories and emotions while returning from rumination to present possibilities	Safe and gradual contact with activated material; observing "if only" narratives; emotional anchoring; present-moment reorientation; written reflective exercise
5	Reorganizing the Relationship with Unlived-Life Grief	Symbolic losses, irreversible limitations, and missed opportunities	Increase acceptance of irreversible losses and reduce struggle with existential grief	Primary pain versus secondary suffering; the hole metaphor; letter to the past self from the observer perspective; acceptance of loss without forced resolution
6	Self-as-Context and Distance from the Critical Identity Narrative	Fusion with failure, exhaustion, and self-criticism	Differentiate the observing self from narratives of failure, depletion, and inadequacy	Observer-self exercises; distinction between "I am exhausted" and "I am experiencing exhaustion"; labeling self-critical thoughts; values-consistent self-compassion
7	Livable Values and the Design of Small Actions	Values clarification and restoration of agency	Distinguish values from lost goals and convert livable values into small, realistic, sustainable actions	Values clarification; distinction between goals and values; life-legacy exercise used cautiously; breakdown of large compensatory goals into small actions; nonjudgmental action monitoring
8	Relational Committed Action and Reduction of Deep Loneliness	Interpersonal withdrawal and emotionally ineffective relationships	Increase gradual, safe, values-based relational behavior and reduce interpersonal avoidance	Identification of relational values; graded relational-action hierarchy; role-play of difficult conversations; safe expression of needs; healthy boundary-setting

9	Meaning Integration and Flexible Revision of Identity	Meaning crisis and identity reconstruction	Develop a flexible, values-based life narrative that can include existential grief without being controlled by it	Review of the observer perspective; flexible identity narrative; identification of currently livable meaning; personal map for values-based living in the presence of grief
10	Consolidation, Generalization, and Maintenance Planning	Long-term continuation of psychological flexibility and committed action	Consolidate acquired processes, identify warning signs, generalize skills, and prepare a maintenance plan	Review of learning; identification of return to fusion, avoidance, and withdrawal; maintenance plan; high-risk situations; minimum actions; help-seeking and self-care plan

The final protocol retained all six core processes of acceptance and commitment therapy but applied them directly to the qualitative model of psychological pain. Cognitive defusion addressed narratives of lateness, failure, missed opportunities, and the life that should have been lived. Acceptance and present-moment awareness addressed suppressed emotions, persistent sadness, memories, regret, and the urge to escape existential grief. Self-as-context addressed overidentification with failure, exhaustion, financial inadequacy, and the critical narrative self. Values and committed action addressed diminished agency, relational withdrawal, loneliness, and meaning crisis.

The program did not seek to erase grief, correct irreversible aspects of the past, or replace a negative identity narrative with an artificially positive one. Its central purpose was to alter the functional relationship between the individual and existential grief, enabling painful experiences to be observed, accepted, and carried without allowing them to determine identity and behavior. Values-based action was introduced gradually and only after sufficient attention to emotional openness and the acceptance of irreversible limitations. This sequencing was intended to prevent committed action from becoming another attempt to compensate for the idealized self or reconstruct the life that participants believed they should have lived.

The final revisions preserved the theoretical structure of the 10-session program while reducing the density of the middle sessions, strengthening emotional and bodily anchoring, expanding relational components, simplifying worksheets, clarifying therapist instructions, and redefining Session 10 as an active maintenance and generalization session. The resulting program represented the final developmental product of the first two stages of the study. No conclusions regarding therapeutic effectiveness were drawn from these findings.

Discussion and Conclusion

The present study was conducted to explore the nature of psychological pain in the midlife crisis, translate the resulting qualitative model into an acceptance and commitment therapy program, and examine the content validity, face validity, acceptability, and preliminary feasibility of the developed intervention. The qualitative findings indicated that psychological pain in midlife was best conceptualized as “existential grief,” arising from a perceived and increasingly irreversible discrepancy between the ideal self and the lived self. This central phenomenon was experienced through four interconnected dimensions: regret, persistent sadness, helplessness, and deep loneliness. The findings further showed that existential grief developed through the interaction of accumulated failures, unresolved developmental wounds, and chronically suppressed emotions; was intensified by multidimensional midlife pressures, ineffective emotional relationships, and the perceived closure of future opportunities; and was maintained through avoidant or

temporarily relieving coping responses. The intervention-development phase translated these findings into a 10-session acceptance and commitment therapy program organized around acceptance, cognitive defusion, present-moment awareness, self-as-context, values clarification, and committed action. Expert and client-oriented evaluations generally supported the program's theoretical coherence, relevance, clarity, cultural suitability, and practical feasibility, while also identifying the need to reduce session density, clarify therapist instructions, simplify exercises, strengthen emotional safety, and refine the maintenance session.

The identification of existential grief as the central formulation of psychological pain extends current understandings of midlife crisis beyond symptom-based accounts. Existing research suggests that midlife is not necessarily characterized by a universal crisis, but it can involve a complex reassessment of identity, relationships, accomplishments, health, and future possibilities (1, 2). The present participants did not describe their suffering merely as transient dissatisfaction or emotional instability. Instead, they experienced it as grief for aspects of life that had not been lived, versions of the self that had not been realized, and possibilities perceived as no longer recoverable. This finding aligns with research demonstrating that midlife distress may be linked to declines in life satisfaction, increasing psychological strain, occupational or relational disappointment, and uncertainty regarding one's remaining life course (2, 6). It is also consistent with historical analyses showing that the cultural meaning of midlife crisis is closely connected to changing expectations regarding personal fulfillment, self-realization, productivity, and successful aging (3).

The four dimensions of existential grief identified in this study—regret, persistent sadness, helplessness, and deep loneliness—appear to represent related but functionally distinct expressions of psychological pain. Regret reflected repetitive comparison between actual life and alternative possibilities, while persistent sadness represented sustained mourning for accumulated symbolic losses. Helplessness involved a decline in perceived agency and the belief that meaningful change was no longer possible. Deep loneliness referred to emotional invisibility and disconnection, even when participants remained socially or relationally embedded. This multidimensional structure is consistent with the conceptualization of mental pain as a transdiagnostic form of suffering that includes emotional torment, shame, hopelessness, loneliness, loss of meaning, and painful self-evaluation (7). It also supports the view that psychological pain cannot be reduced to depression alone because it may involve existential, relational, cognitive, and identity-related components that cut across conventional diagnostic categories.

The prominence of regret and perceived irreversibility in the findings may be explained by the temporal structure of midlife. Participants evaluated the past through missed opportunities, the present through exhaustion and constraint, and the future through narrowing possibilities. Research on midlife has similarly shown that this developmental period can become a point of intensive self-evaluation in which individuals compare their current position with earlier aspirations and socially defined expectations (1). The qualitative experiences reported by former competitive athletes also demonstrate how changes in health, performance, status, and identity may force adults to reconsider previously stable life narratives and adapt to diminished or altered capacities (4). In the present study, however, the threatened identity was not confined to one domain. Participants described unrealized occupational potential, unsatisfactory intimate relationships, economic disappointment, family obligations, and a broader sense that the life they had expected was no longer attainable.

The findings also highlighted the importance of ineffective emotional relationships as an intervening condition that deepened psychological pain. Participants frequently described being unseen, misunderstood, emotionally unsupported, or trapped in relationships lacking intimacy and mutual recognition. This finding corresponds with evidence that marital intimacy plays an important role in midlife adjustment and may influence the association between midlife crisis and maladaptive relational tendencies (5). Emotional disconnection may intensify existential grief because the individual lacks a safe interpersonal context in which losses, regrets, and fears can be acknowledged and processed. Consequently, loneliness in midlife may not be equivalent to objective social isolation; it can reflect a profound absence of emotional attunement within existing relationships. This helps explain why the intervention required a distinct focus on relational values, safe expression of needs, gradual interpersonal action, and reduction of relational withdrawal.

The causal and contextual conditions identified in the conceptual model further illustrate that midlife psychological pain is cumulative rather than episodic. Unresolved developmental injuries, emotional deprivation, repeated failures, and suppressed anger or sadness were not experienced as separate historical events. They remained psychologically active and were reinterpreted through the heightened self-evaluation of midlife. These vulnerabilities interacted with contemporary pressures such as economic strain, caregiving responsibilities, occupational exhaustion, and cultural expectations. Research linking midlife crisis with psychological capital supports the importance of perceived self-efficacy, hope, resilience, and optimism in determining how adults manage these pressures (6). Where such resources are diminished, the convergence of historical vulnerability and current stress may create a stronger sense of helplessness and entrapment.

Although the present study was not designed to examine suicidality, some participants described severe hopelessness and self-harm-related experiences. This finding is clinically important because psychological pain has been consistently associated with suicidal ideation and behavior (8-10). Psychological pain may become particularly dangerous when individuals perceive it as unbearable, inescapable, and unlikely to change. The present model suggests that the combination of existential grief, perceived closure of opportunities, ineffective relationships, and avoidant coping may increase this sense of entrapment. These findings support recommendations that clinicians assess psychological pain directly rather than relying exclusively on diagnostic symptoms or general distress measures. They also reinforce the need for clear risk-assessment and referral procedures when interventions address intense grief, hopelessness, or perceived meaninglessness.

The coping responses identified in the study were predominantly avoidant or only temporarily relieving. Participants described emotional suppression, withdrawal, fantasy, overwork, substance use, distraction, and continued involvement in ineffective relationships. These strategies often reduced distress in the short term but did not modify the person's relationship with regret, grief, loneliness, or identity-based narratives. This pattern is consistent with the acceptance and commitment therapy account of experiential avoidance, in which efforts to eliminate or control unwanted internal experiences can paradoxically narrow behavior and maintain suffering (14). The findings therefore supported the selection of acceptance and commitment therapy not because it promised to remove grief or reverse the past, but because it offered processes for changing how individuals relate to painful thoughts, emotions, memories, and self-narratives.

The developed program was also consistent with process-based intervention science. Rather than applying a generic protocol, the intervention linked specific mechanisms identified in the qualitative model to

targeted therapeutic processes. Fusion with narratives such as “it is too late” or “my life has been wasted” was linked to cognitive defusion; avoidance of sadness and painful memories was linked to acceptance and present-moment contact; identification with failure and exhaustion was linked to self-as-context; and helplessness, loneliness, and meaning crisis were linked to values clarification and committed action. This individualized mechanism-focused logic is consistent with the broader movement toward process-based therapy, which emphasizes modifiable processes rather than rigid disorder-specific packages (17). It also corresponds with evidence that acceptance and commitment therapy can address anxiety, depression, severe distress, and suicidal vulnerability by increasing psychological flexibility (14-16).

The translation of the qualitative findings into intervention content followed a structured developmental logic. The model of existential grief defined the problem structure, while acceptance and commitment therapy provided the change processes. This approach corresponds with intervention mapping, in which empirically and theoretically identified determinants are translated into specific change objectives, methods, and practical applications (19). It is also consistent with contemporary guidance for complex interventions, which emphasizes the integration of theory, context, stakeholder perspectives, mechanisms, implementation considerations, and iterative refinement (18). The resulting program therefore represented more than a collection of therapeutic techniques; it provided a traceable pathway from qualitative categories to change objectives, therapeutic processes, session content, exercises, and implementation guidance.

The validation findings provided preliminary support for the coherence and appropriateness of this translation. Nine sessions met both the original and conservative content-validity thresholds, while the central sessions addressing formulation, acceptance, existential grief, and meaning integration received complete expert agreement. These findings suggest that the program’s main theoretical architecture was considered clinically relevant and necessary. The high overall content validity index and adjusted kappa coefficients further indicated strong agreement beyond chance. These procedures are consistent with recommendations that content validation combine structured expert judgment with quantitative indices of relevance, clarity, and necessity (23).

Session 10 was the only session with a content validity ratio below the predefined threshold. However, qualitative feedback suggested that experts did not view the session as irrelevant; rather, its consolidating function appeared less independently essential than sessions introducing new therapeutic processes. Retaining and redefining the session as consolidation, generalization, maintenance planning, and relapse prevention was therefore theoretically and methodologically defensible. Pilot and feasibility literature emphasizes that progression decisions should not be based solely on isolated numerical criteria when qualitative evidence clarifies the practical or conceptual role of a component (21). The revision also strengthened the distinction between intervention development and effectiveness evaluation, consistent with guidance for pilot and feasibility research (20, 22).

Expert and client-oriented face-validity findings indicated that the program was generally understandable, culturally relevant, and professionally organized. However, both groups identified metaphors, experiential exercises, and therapist instructions as areas requiring additional clarification. This convergence is important because acceptance and commitment therapy relies heavily on experiential learning and metaphor rather than didactic explanation alone. A metaphor may be theoretically appropriate yet clinically ineffective if it is linguistically unfamiliar or culturally distant. The revisions therefore

emphasized examples grounded in the daily experiences of Iranian middle-aged adults, including family responsibilities, economic limitations, relationship strain, social expectations, and the tension between personal values and culturally internalized demands.

Feasibility findings also showed a distinction between conceptual acceptability and practical implementation. Participants generally approved the content and session sequence but reported possible difficulties associated with limited time, occupational responsibilities, emotional fatigue, homework burden, and variable motivation. This distinction is compatible with implementation research demonstrating that acceptability, appropriateness, and feasibility are related but separate constructs (24). An intervention may be meaningful and acceptable while remaining difficult to implement under real-life conditions. The introduction of shorter early exercises, minimum homework options, graded task difficulty, in-session rehearsal, and flexible pacing therefore represented important refinements rather than peripheral adjustments.

This study had several limitations. The qualitative sample was relatively small, predominantly female, highly educated, employed, and restricted to adults living in urban areas of Tehran. Consequently, the conceptual model may not fully represent the experiences of rural populations, unemployed adults, individuals with lower educational levels, or people living in different cultural and socioeconomic settings. The expert panel and client-oriented validation groups were also small and selected purposively, which may have increased the influence of shared professional or educational characteristics. In addition, feasibility and acceptability were assessed primarily through judgments about the intervention materials and proposed implementation rather than through a full clinical delivery of the complete program. The study therefore established preliminary developmental and validation evidence but did not examine therapeutic outcomes, sustained adherence, therapist fidelity under routine conditions, or changes in psychological pain.

Future studies should examine the transferability of the existential-grief model in more diverse populations, including men and women from different socioeconomic, educational, occupational, regional, and cultural backgrounds. Further qualitative work could investigate whether the four dimensions of existential grief remain stable across groups or whether additional dimensions emerge in populations facing unemployment, chronic illness, migration, caregiving burden, or marital disruption. The revised intervention should next undergo a structured feasibility study involving actual program delivery, assessment of recruitment and retention, therapist fidelity, homework adherence, adverse emotional reactions, and participant experiences across sessions. Subsequent pilot and controlled studies may then assess preliminary clinical outcomes and determine which therapeutic processes mediate change.

Clinicians working with middle-aged adults should assess psychological pain, regret, perceived loss of opportunity, loneliness, and meaning disruption rather than focusing only on symptoms of anxiety or depression. Treatment should validate real losses and limitations without encouraging resignation or premature positive reframing. Therapists using the developed program should introduce grief-related material gradually, monitor emotional safety, distinguish values from pressure to compensate for the past, and adapt homework to the client's available time and emotional capacity. Particular attention should be given to therapeutic alliance, relational withdrawal, self-harm risk, and the client's ability to translate personally meaningful values into small and sustainable actions.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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