

# The Effectiveness of Group Logotherapy on Transcendental Future Orientation and Interpersonal Forgiveness in Individuals with Existential Anxiety

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## ABSTRACT

The present study aimed to determine the effectiveness of group logotherapy on transcendental future orientation and interpersonal forgiveness in individuals with existential anxiety. This study employed a quasi-experimental design with a pretest–posttest control group. The statistical population consisted of all individuals with existential anxiety who referred to Avid Counseling and Psychology Center in Tehran in 2025. In this study, 24 individuals were selected from the population using a non-random purposive (goal-based) sampling method based on inclusion criteria. Participants were then randomly assigned to an experimental group (n = 12) and a control group (n = 12). Following attrition, 10 participants successfully completed the intervention. The Transcendental Future Time Perspective Questionnaire (Boyd & Zimbardo, 1997), the Interpersonal Forgiveness Questionnaire (Ehteshamzadeh et al., 2011), and the Existential Anxiety Questionnaire (Good, 1974) were used in this study. The experimental group participated in 12 sessions of group logotherapy, each lasting 90 minutes, while the control group received no intervention. The collected data were analyzed using multivariate and univariate analysis of covariance. The results indicated a statistically significant difference between the posttest mean scores of the experimental and control groups ( $p < .01$ ). The findings suggest that group logotherapy can be used as an effective therapeutic approach to enhance transcendental future orientation and interpersonal forgiveness in individuals with existential anxiety.

**Keywords:** group logotherapy, transcendental future orientation, interpersonal forgiveness, existential anxiety

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## Introduction

Existential anxiety is increasingly recognized as a core psychological concern in contemporary mental health research, particularly in societies experiencing rapid social, cultural, and existential transitions. Rooted in existential philosophy and psychology, existential anxiety reflects individuals' deep concerns about meaninglessness, death, isolation, and freedom, and it often emerges when personal meaning systems are threatened or disrupted. Unlike conventional forms of anxiety that are primarily associated with specific stimuli or situational stressors, existential anxiety is fundamentally linked to questions about purpose, future orientation, and the value of one's existence. Empirical studies have shown that existential anxiety is

associated with reduced psychological well-being, impaired interpersonal functioning, and diminished adaptive coping capacities, making it a critical target for therapeutic intervention (1, 2).

One of the key psychological constructs closely intertwined with existential anxiety is time perspective, particularly individuals' orientation toward the future. Time perspective theory posits that people cognitively and emotionally organize their experiences within temporal frames of past, present, and future, and that these orientations exert a profound influence on motivation, emotion regulation, and psychological adjustment. Research has consistently demonstrated that maladaptive time perspectives, such as a pessimistic or fragmented view of the future, are associated with heightened anxiety, depressive symptoms, and existential distress (3, 4). In contrast, adaptive future-oriented perspectives promote goal-directed behavior, resilience, and a sense of continuity between present actions and future meaning (5, 6).

Within the broader domain of future orientation, the concept of *transcendental future orientation* has gained increasing attention in existential and positive psychology. Transcendental future orientation extends beyond immediate or material future goals and encompasses beliefs about life beyond the self, symbolic immortality, spirituality, and meaning that transcends temporal limitations. This form of future thinking allows individuals to integrate existential concerns, particularly death anxiety and meaninglessness, into a coherent and hopeful worldview (3). Studies suggest that individuals with a stronger transcendental future orientation demonstrate greater psychological coherence, higher resilience, and lower levels of existential anxiety, especially in the face of illness, trauma, and life-threatening conditions (7, 8).

Another psychological construct deeply affected by existential anxiety is interpersonal forgiveness. Forgiveness, defined as a conscious process of reducing resentment, hostility, and revenge motivations toward an offender while fostering understanding and emotional release, plays a vital role in psychological health and interpersonal harmony. From an existential perspective, unresolved interpersonal grievances can intensify feelings of isolation, bitterness, and meaninglessness, thereby exacerbating existential anxiety. Conversely, forgiveness facilitates emotional liberation, relational repair, and the restoration of personal meaning, making it a crucial component of existential well-being (9, 10).

Empirical evidence indicates that forgiveness is not merely a moral or interpersonal virtue, but a robust psychological resource associated with reduced anxiety, enhanced mental health, and improved quality of life. Studies conducted in clinical and non-clinical populations have shown that higher levels of forgiveness are linked to lower levels of depression, stress, and existential distress, particularly among individuals who have experienced relational trauma or chronic psychological strain (11, 12). Importantly, forgiveness appears to function as a mediating mechanism through which individuals reconstruct meaning and restore trust in themselves, others, and life as a whole.

Meaning-centered therapeutic approaches, particularly logotherapy and meaning therapy, have been proposed as especially effective interventions for addressing existential anxiety and its associated psychological deficits. Originating from Viktor Frankl's existential analysis, logotherapy is grounded in the assumption that the primary motivational force in humans is the will to meaning. According to this framework, psychological distress arises when individuals experience an existential vacuum characterized by meaninglessness, hopelessness, and disconnection from values (13, 14). By facilitating meaning discovery, value clarification, and responsibility toward life, logotherapy aims to transform existential suffering into personal growth and psychological resilience.

Contemporary developments in meaning therapy and existential positive psychology have further expanded the scope of logotherapy by integrating positive psychology constructs such as resilience, hope, psychological capital, and well-being. These integrative models emphasize not only the alleviation of suffering but also the cultivation of meaning-based strengths that enable individuals to thrive despite adversity (2, 15). Empirical studies have supported the effectiveness of logotherapy-based interventions in reducing anxiety, depression, and existential distress across diverse populations, including patients with chronic illness, cancer, frontline healthcare workers, and individuals experiencing pandemic-related stress (8, 16, 17).

Group-based formats of logotherapy have received particular attention due to their dual therapeutic benefits: addressing existential concerns while simultaneously fostering interpersonal connection and shared meaning-making. Group logotherapy provides a structured space in which individuals can explore existential themes collectively, normalize existential fears, and engage in mutual support. Research indicates that group logotherapy is effective in enhancing spirituality, reducing death anxiety, increasing life expectancy perceptions, and improving overall psychological well-being (7, 11). Moreover, group-based meaning interventions have been shown to facilitate interpersonal forgiveness by promoting empathy, perspective-taking, and value-based reconciliation (9, 10).

Recent studies have also highlighted the relevance of meaning-centered interventions for modifying time perspective. Meaning-oriented therapies appear to help individuals reframe their relationship with time by transforming a fragmented or threatening future into a coherent and value-driven horizon. Evidence suggests that interventions integrating meaning therapy, time perspective therapy, and positive psychotherapy can significantly improve adaptive future orientation, psychological capital, and well-being in clinical populations (18-20). These findings underscore the theoretical and empirical link between meaning, time perspective, and existential anxiety.

Despite the growing body of research on logotherapy, forgiveness, and time perspective, several gaps remain in the literature. First, relatively few studies have simultaneously examined transcendental future orientation and interpersonal forgiveness as outcomes of meaning-centered interventions, particularly in individuals experiencing existential anxiety. Second, most existing studies have focused on specific medical or occupational populations, leaving community-based individuals with existential anxiety underrepresented. Third, there is limited empirical evidence from group logotherapy interventions that explicitly target both future-oriented meaning and interpersonal reconciliation within a unified therapeutic framework (12, 21).

Addressing these gaps is particularly important in contemporary contexts where existential concerns are amplified by global uncertainty, health crises, and rapid sociocultural change. Understanding how group logotherapy can enhance transcendental future orientation and interpersonal forgiveness may provide valuable insights for designing integrative, meaning-based interventions aimed at reducing existential anxiety and promoting sustainable psychological well-being. Furthermore, examining these constructs together aligns with emerging perspectives in existential positive psychology, which emphasize the integration of suffering, meaning, and relational growth as core components of mental health (2, 4).

Therefore, the present study aimed to examine the effectiveness of group logotherapy on transcendental future orientation and interpersonal forgiveness in individuals with existential anxiety.

## Methods and Materials

### *Study Design and Participants*

The present study employed a quasi-experimental design with a pretest–posttest control group. The statistical population consisted of all individuals with existential anxiety in the city of Tehran in 2025 who referred to the Avid Counseling and Psychology Center. From this population, 24 individuals were selected using a non-random purposive (goal-based) sampling method and then randomly assigned to an experimental group (n = 12) and a control group (n = 12). The experimental group participated in 12 sessions of group logotherapy, each lasting 90 minutes, and following attrition, 10 participants successfully completed the treatment. The control group received no intervention. Inclusion criteria included: informed consent to participate in the study; at least a high school diploma (due to the nature of the logotherapy approach); obtaining a score higher than 24 on the Existential Anxiety Questionnaire (based on a standard deviation of 6.22 and a mean of 17.64 reported by Hult, 1994); diagnosis by a psychologist or psychiatrist; not receiving psychotropic medication or psychotherapy outside the sessions of the present study; and being within the age range of 18 to 50 years. Exclusion criteria included: unwillingness to continue participation in the study; anticipated psychological harm to participants; absence from more than two treatment sessions; failure to participate in the posttest assessment; and incomplete or unanswered questionnaires.

### *Data Collection*

**Transcendental Future Time Perspective Questionnaire:** This questionnaire was developed by Zimbardo and Boyd (1999) and consists of 10 items. Responses are scored on a five-point Likert scale ranging from strongly agree (5), agree (4), undecided (3), disagree (2), to strongly disagree (1). To calculate the total score, the scores of all items are summed, yielding a possible score range of 10 to 50. Higher scores indicate a stronger transcendental future orientation, and lower scores indicate the opposite. Validity refers to the extent to which a measurement instrument assesses what it is intended to measure (Sarmad et al., 2011). In the study by Golestaneh et al. (2016), the content, face, and criterion validity of this questionnaire were evaluated as satisfactory. Reliability refers to the degree of stability of an instrument in measuring a construct, meaning the extent to which it yields consistent results under similar conditions (Sarmad et al., 2011). In the study by Golestaneh et al. (2016), the Cronbach's alpha coefficient for this questionnaire was reported to be above .70, and the reliability coefficient of the Transcendental Future Time Perspective Questionnaire was .83.

**Interpersonal Forgiveness Questionnaire:** This questionnaire was designed by Ehteshamzadeh et al. (2010) to assess the level of interpersonal forgiveness and its dimensions in individuals, including reconnection and control of revenge, control of resentment, and realistic understanding. The questionnaire consists of 25 items. The response format is based on a Likert scale. For items 19, 20, 21, 22, 23, 24, and 25, scoring is as follows: strongly disagree (1), disagree (2), agree (3), and strongly agree (4). The remaining items are reverse scored, such that strongly disagree (4), disagree (3), agree (2), and strongly agree (1). Accordingly, the minimum total score is 25 and the maximum is 100. Higher scores indicate a greater capacity to forgive others' transgressions. The questionnaire comprises three dimensions: reconnection and control of revenge (items 1–12), control of resentment (items 13–18), and realistic understanding (items 19–

25). To obtain the score for each dimension, the scores of the relevant items are summed. In the study by Ehteshamzadeh et al. (2010), the validity of the Interpersonal Forgiveness Scale was examined through concurrent administration with the forgiveness subscale of the Family Forgiveness Scale (FFS), yielding a significant correlation that indicated good validity. Reliability was assessed using Cronbach's alpha coefficient. The Cronbach's alpha values were .77 for reconnection and control of revenge, .66 for control of resentment, .57 for realistic understanding, and .80 for the total scale.

**Existential Anxiety Questionnaire:** The Existential Anxiety Questionnaire was developed and validated by Lawrence and Katrina Good (1974). This scale consists of 32 items scored in a dichotomous (0–1) format. The questionnaire was validated in Iran by Adel (2015). Participants are instructed to read each statement and respond “true” if the statement corresponds with their feelings or beliefs, and “false” if it does not. Validity refers to the ability of a measurement instrument to assess the intended characteristic, and inadequate measurement can render scientific research invalid (Sarmad et al., 1999). Hult (1994) examined the validity of this questionnaire by correlating it with measures of purpose in life, pursuit of epistemic goals, and depression. The correlation between the existential anxiety scale score and the composite score of the three aforementioned questionnaires was .66, indicating good content validity. In the study by Adel (2014), internal consistency was assessed using the split-half method, yielding coefficients of .721 for the first half and .826 for the second half. Reliability refers to the consistency of measurement results when the instrument is administered repeatedly to the same group over a short time interval. Reliability coefficients typically range from 0 to 1, with higher values indicating greater reliability. In Adel's study (2014), reliability was assessed using Cronbach's alpha, and a satisfactory coefficient of  $\alpha = .874$  was obtained.

### *Intervention*

The intervention consisted of a structured group logotherapy program delivered in 12 weekly sessions, each lasting 90 minutes, and implemented in a group format by a trained psychologist with expertise in meaning-centered therapy. The protocol was grounded in Frankl's logotherapy and contemporary meaning therapy principles and aimed to enhance existential meaning, transcendental future orientation, and interpersonal forgiveness. The initial sessions focused on establishing group cohesion, introducing existential concepts, and exploring personal experiences of existential anxiety and meaninglessness. Mid-phase sessions emphasized value clarification, freedom and responsibility, attitude modification toward suffering, and the discovery of meaning through creative, experiential, and attitudinal values, using techniques such as Socratic dialogue, paradoxical intention, dereflection, guided reflection, and narrative meaning reconstruction. Specific sessions addressed future-oriented meaning by helping participants articulate life purposes, connect present actions to long-term and transcendental values, and reframe death and finitude as motivators for meaningful living. Interpersonal forgiveness was addressed through existential reframing of interpersonal injuries, empathy development, responsibility-taking, and exercises focused on letting go of resentment and restoring relational meaning. The final sessions were devoted to integrating insights, consolidating meaning-based coping strategies, promoting commitment to value-driven action, and preparing participants to apply learned principles beyond the therapeutic setting.

### Data analysis

Data were analyzed using SPSS version 26. Descriptive statistics (means and standard deviations) were calculated to summarize the data, and inferential analyses were conducted using univariate and multivariate analysis of covariance (ANCOVA and MANCOVA) to examine between-group differences while controlling for pretest scores. The assumptions of normality and homogeneity of variances were assessed prior to analysis, and statistical significance was set at  $p < .05$ .

### Findings and Results

The frequency and percentage of participants in the study indicate that among individuals with existential anxiety, the control group included 10 participants (50.0%), the experimental group included 10 participants (50.0%), and the total sample comprised 20 participants (100%).

**Table 1. Descriptive statistics of the Transcendental Future Orientation and Interpersonal Forgiveness scales in individuals with existential anxiety**

Variable	Test Phase	Group	N	Mean	Standard Deviation	Minimum	Maximum	Range	
Transcendental Future Orientation	Pretest	Control group	10	30.00	3.232	25	35	10	
		Experimental group	10	30.40	3.134	25	35	10	
		Total	20	30.20	3.105	25	35	10	
	Posttest	Control group	10	30.60	2.951	25	35	10	
		Experimental group	10	34.71	2.984	30	40	9	
		Total	20	32.65	3.575	25	40	15	
	Interpersonal Forgiveness	Pretest	Control group	10	57.40	4.949	50	65	15
			Experimental group	10	57.80	4.849	51	65	14
			Total	20	57.60	4.773	50	65	15
Posttest		Control group	10	58.00	4.522	52	65	13	
		Experimental group	10	64.50	5.216	55	70	15	
		Total	20	61.25	5.804	52	70	18	

The data presented in the table above show the descriptive statistics related to the Transcendental Future Orientation scale in individuals with existential anxiety. Based on the obtained results, the mean score of Transcendental Future Orientation in the pretest was 30.00 in the control group and 30.40 in the experimental group, while in the posttest it was 30.60 in the control group and 34.71 in the experimental group. In a descriptive comparison, the overall mean of the Transcendental Future Orientation scale in the posttest (32.65) was higher than in the pretest (30.20).

The descriptive statistics related to the Interpersonal Forgiveness scale in individuals with existential anxiety are also presented. According to the results, the mean score of Interpersonal Forgiveness in the pretest was 57.40 in the control group and 57.80 in the experimental group, while in the posttest it was 58.00 in the control group and 64.50 in the experimental group. In a descriptive comparison, the overall mean of the Interpersonal Forgiveness scale in the posttest (61.25) was higher than in the pretest (57.60).

The results of Levene's test for examining the homogeneity of variances for the Transcendental Future Orientation, and Interpersonal Forgiveness scales in individuals with existential anxiety are presented. The

findings, with alpha levels greater than .05, indicate that the variances and covariances of the Transcendental Future Orientation scale were homogeneous ( $p > .05$ ), and the variances and covariances of the Interpersonal Forgiveness scale were also homogeneous ( $p > .05$ ).

**Table 2. Results of univariate analysis of covariance (ANCOVA) for the Transcendental Future Orientation, and Interpersonal Forgiveness scales in individuals with existential anxiety**

Source of Variance	Variable	Sum of Squares	df	Mean Square	F	p	$\eta^2$
Group logotherapy (control vs. experimental)	Transcendental Future Orientation	68.565	1	68.565	15.407	.001	.813
	Interpersonal Forgiveness	191.291	1	191.291	12.336	.001	.619

The data presented in the table above show the results of the univariate analysis of covariance for the Transcendental Future Orientation and Interpersonal Forgiveness scales in individuals with existential anxiety. Group logotherapy was effective in individuals with existential anxiety on the Transcendental Future Orientation scale in the experimental group with 99% confidence ( $p < .01$ ). Group logotherapy was also effective in individuals with existential anxiety on the Interpersonal Forgiveness scale in the experimental group with 99% confidence ( $p < .01$ ).

## Discussion and Conclusion

The present study examined the effectiveness of group logotherapy on transcendental future orientation and interpersonal forgiveness in individuals with existential anxiety. The findings demonstrated that participants who received group logotherapy showed a statistically significant improvement in both transcendental future orientation and interpersonal forgiveness compared with the control group. These results indicate that meaning-centered group interventions can play a substantial role in modifying core existential constructs that are closely tied to anxiety, psychological coherence, and relational functioning. The observed effects are particularly meaningful given that existential anxiety is often resistant to purely symptom-focused interventions and requires deeper engagement with issues of meaning, purpose, and values (1, 2).

The significant increase in transcendental future orientation among participants in the experimental group suggests that group logotherapy effectively reshaped participants' temporal frameworks. From the perspective of time perspective theory, a transcendental future orientation reflects an expanded sense of time that integrates present life with enduring values, symbolic continuity, and beliefs that extend beyond immediate personal outcomes (3). Logotherapy, by emphasizing responsibility toward life, value realization, and meaning beyond the self, appears to facilitate this broader temporal integration. This finding is consistent with previous research demonstrating that meaning-based interventions can positively influence future-oriented cognition, hope, and long-term goal orientation, especially in populations experiencing existential distress (18-20).

The results align with studies showing that existential and meaning-centered therapies help individuals transform a threatening or empty perception of the future into a meaningful horizon grounded in values and purpose. For example, interventions based on logotherapy have been shown to reduce death anxiety and enhance life expectancy perceptions in patients with cancer, which are constructs closely related to

transcendental future thinking (7, 8). Similarly, research on time perspective indicates that adaptive future orientations are associated with lower anxiety, better emotion regulation, and higher psychological well-being, particularly when future thinking is infused with meaning rather than fear (5, 6). The present findings extend this literature by demonstrating that group logotherapy can specifically enhance transcendental aspects of future orientation in individuals with existential anxiety, a population for whom future-related concerns are often dominated by uncertainty and fear.

In addition to changes in future orientation, the study found a significant improvement in interpersonal forgiveness among participants who underwent group logotherapy. This finding underscores the relational dimension of existential interventions. Existential anxiety often involves profound feelings of isolation, resentment, and unresolved interpersonal conflict, which can intensify psychological distress and undermine meaning in life. Logotherapy's focus on freedom, responsibility, and value-based choices may facilitate forgiveness by helping individuals reinterpret interpersonal injuries within a broader existential and moral framework (13, 14). By reframing suffering as an opportunity for meaning and growth, participants may become more capable of releasing resentment and engaging in reconciliation.

The observed increase in interpersonal forgiveness is consistent with previous empirical findings indicating that logotherapy and related existential approaches are effective in enhancing forgiveness and relational trust. Studies comparing logotherapy with other therapeutic approaches have shown that meaning-centered interventions significantly improve forgiveness and marital trust in individuals affected by relational trauma, such as infidelity (9, 10). These findings suggest that forgiveness is not merely a cognitive or behavioral process but is deeply rooted in individuals' existential meaning systems. When individuals reconstruct meaning around suffering and responsibility, forgiveness may emerge as a natural outcome of existential integration rather than as a forced moral obligation.

The group format of logotherapy likely played a critical role in enhancing forgiveness outcomes. Group settings provide opportunities for shared meaning-making, normalization of existential struggles, and empathic understanding of others' experiences. Through group dialogue, participants may recognize the universality of suffering and develop compassion for both themselves and others, which are essential precursors to forgiveness. Previous studies have highlighted the effectiveness of group logotherapy in improving spirituality, reducing anxiety, and enhancing psychological well-being, suggesting that interpersonal processes within the group amplify the therapeutic effects of meaning-centered interventions (11, 12). The current findings support this view by demonstrating that group logotherapy can foster relational healing alongside individual existential growth.

The simultaneous improvement in transcendental future orientation and interpersonal forgiveness highlights the integrative nature of logotherapy. These two constructs are theoretically interconnected: a meaningful and hopeful orientation toward the future may reduce defensiveness and fear, thereby creating psychological space for forgiveness, while forgiveness may free individuals from past burdens that obstruct future-oriented meaning. This reciprocal relationship is consistent with existential positive psychology, which emphasizes the integration of suffering, meaning, and relational growth as core components of mental health (2, 15). The present study provides empirical support for this integrative framework by showing that a single intervention can positively influence both temporal and relational dimensions of existential functioning.

The findings also resonate with research conducted in diverse clinical and non-clinical populations demonstrating the broad applicability of logotherapy. Studies have reported positive effects of logotherapy on anxiety, depression, psychological hardiness, and quality of life among students, healthcare workers, and patients facing severe illness or pandemic-related stress (16, 17, 22). By focusing on individuals with existential anxiety in a community-based context, the present study extends this evidence and suggests that logotherapy is not limited to crisis or medical settings but can be effectively applied to broader populations experiencing existential distress.

Overall, the results of this study support the theoretical assumption that existential anxiety is best addressed through interventions that directly engage with meaning, values, and future-oriented purpose rather than solely targeting symptomatic anxiety. Group logotherapy appears to provide a coherent framework for addressing existential concerns by enhancing transcendental future orientation and fostering interpersonal forgiveness, both of which contribute to psychological coherence and resilience. These findings reinforce the position that meaning-centered therapies occupy a crucial place in contemporary psychological practice, particularly in an era marked by uncertainty, rapid change, and heightened existential questioning (4, 5).

Despite the promising findings, several limitations should be considered when interpreting the results of this study. The sample size was relatively small, which may limit the generalizability of the findings and reduce statistical power. In addition, the use of a quasi-experimental design and reliance on self-report measures may introduce response biases and limit causal inference. The study was also conducted within a single cultural and geographical context, which may influence the expression of existential anxiety, forgiveness, and future orientation.

Future research should replicate these findings using larger and more diverse samples to enhance generalizability. Longitudinal designs are recommended to examine the durability of the observed effects over time and to assess whether improvements in transcendental future orientation and interpersonal forgiveness are maintained. Future studies may also benefit from comparing group logotherapy with other meaning-based or cognitive-behavioral interventions to clarify relative effectiveness and underlying mechanisms of change.

From a practical perspective, the findings suggest that group logotherapy can be incorporated into counseling and mental health services for individuals experiencing existential anxiety. Practitioners may consider integrating meaning-centered group programs to address both individual existential concerns and interpersonal difficulties. Such interventions may be particularly valuable in community, educational, and healthcare settings where existential distress is prevalent and where group-based approaches can enhance accessibility and cost-effectiveness.

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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. This article is derived from the first author's master's thesis conducted at the Arak Branch, Islamic Azad University, Arak, Iran, and has received ethical approval with the code IR.IAU.ARAK.REC.1404.126 from the Faculty Research Ethics Committee.

## 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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