

From intolerance of uncertainty to action crisis: The mediating role of goal self-efficacy

Michaela Muchová and Ester Nosáľová



MICHAELA MUCHOVÁ

Department of Psychology, Faculty of Arts,
Pavol Jozef Šafárik University in Košice, Slovakia
michaela.muchova@student.upjs.sk



ESTER NOSÁĽOVÁ

Department of Psychology, Faculty of Arts,
Pavol Jozef Šafárik University in Košice, Slovakia

About the authors

Michaela Muchová is in the final year of her PhD studies at Pavol Jozef Šafárik University, specialising in attitudes toward uncertainty and goal-related behaviour in young adults. Her research examines how young people cope with uncertainty in their pursuit of personal and professional aspirations. She has also been involved in workshops that help students handle stressful situations and manage them effectively in the context of reaching personal and professional goals.

Ester Nosáľová recently completed her PhD at Pavol Jozef Šafárik University, focusing on career decision-making and goal pursuit. Her research explores how individuals navigate career choices and the factors that influence their persistence and motivation in achieving long-term objectives. She has actively contributed to both academic research and practical applications, conducting workshops for aspiring university students, offering insights into effective goal-setting strategies and the relationship between decision-making and professional success.

Abstract

This study examined the mediating role of goal self-efficacy in the relationship between components of intolerance of uncertainty (prospective and inhibitory anxiety) and action crisis during goal pursuit in emerging adulthood. Conducted longitudinally across three stages, the study employed questionnaires to assess intolerance of uncertainty in the first stage, goal self-efficacy in the first and second stage, and action crisis in the third stage. Only participants who maintained the same work-related goal over two years were included, resulting in a final sample of 41 emerging adults (75.6% women). Data were analysed using bootstrapping (5,000 samples, 95% confidence interval). Results indicated that goal self-efficacy was strongly and negatively associated with both action crisis and inhibitory anxiety. Mediation analyses provided partial support for the proposed model: goal self-efficacy significantly mediated the relationship between inhibitory anxiety and action crisis, particularly when measured concurrently. In contrast, the mediation effect for prospective anxiety was not significant, despite some individual paths being statistically meaningful. These findings suggest that the tendency to freeze or avoid decisions in uncertain situations (inhibitory anxiety) may undermine goal self-efficacy and increase vulnerability to action crisis, whereas future-oriented worry (prospective anxiety) may not impair self-efficacy to the same extent. The study highlights the importance of distinguishing between components of intolerance of uncertainty when examining goal pursuit. Limitations include a small and predominantly female sample, which may affect the generalizability of results.

Keywords: work goals, goal self-efficacy, action crisis, intolerance of uncertainty, longitudinal

Introduction

The goals individuals set often align with the developmental tasks, demands, and challenges they face in their current life stage (Nurmi et al., 2002). For instance, Vanda, a recent university graduate, aims to find fulfilling work, earn enough to move out of her parents' home, and achieve financial independence. In emerging adulthood, entering the labour market and finding a job is a key developmental task (Dietrich et al., 2013; Kvasková et al., 2020; Ranta et al., 2014; Shulman & Nurmi, 2010; Turner et al., 2014), as young adults are expected to gradually transition towards financial independence and self-management (Arnett, 2014). Completing education and starting a career foster this independence, influencing other milestones such as continued education, employment, moving away from the parental home, and starting a family (Billari, 2001).

Choosing meaningful goals and taking responsibility for them is integral to identity formation, a process central to emerging adulthood (Marttinen et al., 2016; Shulman & Nurmi, 2010). However, this period is also marked by heightened uncertainty, particularly related to job-seeking and career development. Vanda, for instance, faces uncertainty about her future career prospects and questions her ability to succeed. Her uncertainty can undermine her goal pursuit in two ways, potentially leading to an action crisis. The first is a direct path: experiencing prolonged or intense uncertainty may cause her to contemplate whether to continue striving towards her goal or give up. The second is an indirect path: uncertainty may reduce her belief in her ability to succeed (lower her goal self-efficacy), which in turn can make obstacles feel overwhelming. This accumulated strain may again result in her questioning whether to persist or disengage from her goals. Therefore, our study aims to examine the mediating role of goal self-efficacy in the relationship between intolerance of uncertainty and action crisis during emerging adulthood.

In the following section, we will provide an overview of the period of emerging adulthood. Subsequently, goals will be defined and discussed within the broader context of goal-directed behaviour during this life stage. Finally, the concepts of uncertainty and intolerance of uncertainty will be introduced.

Emerging adulthood

Emerging adulthood, typically spanning ages 18 to 29, is the transition period between adolescence and young adulthood (Arnett, 2014). During this time, individuals often experience a sense of “*feeling in-between*” as they do not fully identify as either adolescents or adults. A key characteristic of this phase is *identity exploration*, where people seek to define themselves and clarify their values across life domains (Arnett, 2005; Nelson & Barry, 2005; Wood et al., 2018).

For instance, Vanda, a recent university graduate, no longer sees herself as an adolescent but does not yet feel fully adult. Her focus is on building her career and achieving financial

independence, aiming to secure a job aligned with her values and move out of her parents' home. This *self-focus* aids her transition into adulthood, as emerging adults invest in personal and professional development (Arnett, 2005; Macek et al., 2007).

Emerging adulthood is also marked by *instability* and frequent changes, which can foster growth but may cause discomfort (Luyckx et al., 2011; Salmela-Aro et al., 2008). Arnett (2005) describes this as an *age of possibilities*, where individuals often feel optimistic about their future, despite current uncertainties (Arnett, 2005; Reifman et al., 2007). Vanda, for example, remains hopeful about her career and independence despite the challenges she faces.

Goals in emerging adulthood

A widely accepted definition of a goal comes from Austin and Vancouver (1996), who describe it as an internal representation of a desired state, which could be an event, process, or outcome. This definition does not distinguish goals from general behaviours or biological reactions, which is critiqued by Milyavskaya and Werner (2018). Modern definitions emphasize goals as cognitive representations of a desired end state to which one is committed (Milyavskaya & Werner, 2018; Niesta & Elliot, 2009). Rather than viewing goals as fixed states, it is essential to see them as evolving; goal pursuit often involves adjusting goals and strategies when faced with obstacles.

In the following section, we will focus on the process of goal attainment and the challenges that may arise during this process. The selection or setting of a goal represents the first step. Given the constraints of time or other resources (e.g., mental energy), it is not feasible to fulfil all desires, making it necessary to prioritize (Keller et al., 2019; Milyavskaya & Werner, 2018). The decision is based on both the attainability and importance of the goal. In addition to its objective attainability, a key factor is *goal self-efficacy*, which refers to an individual's confidence in their ability to achieve the goal (Bandura & Locke, 2003; Pomaki et al., 2009). People with higher goal self-efficacy typically put in more effort at the outset, persist more when facing challenges, and achieve their goals more successfully (Brands et al., 2014; Bandura & Locke, 2003). For instance, finding employment is an objectively attainable goal, but if Vanda doubts whether she possesses the necessary knowledge, skills, or experience to achieve it, this lack of confidence could influence her goal selection.

During emerging adulthood, young people mainly set goals around career and romantic relationships, respectively (Dietrich et al., 2013; Kvasková et al., 2020; Ranta et al., 2014; Turner et al., 2014). With age, goals often shift toward health, family, and work, while younger individuals focus more on education, friendships, and travel (Salmela-Aro et al., 2007). Research suggests that stronger commitment to professional identity correlates with goal setting in that area, leading to greater satisfaction and resilience (Kvasková et al., 2020; Luyckx et al., 2014).

The second step in the process of goal pursuit is planning the specific actions required to achieve the goal. At this stage, it is essential not only to know what one wants to achieve but also to determine where, when, and how to work toward that goal (Yuliawati & Ardyan, 2022). After planning the necessary steps, the active phase begins, during which the individual strives to achieve their goal. As previously mentioned, goal pursuit is not a linear process, and individuals often encounter various obstacles. Obstacles are a common part of the process, but their perception is subjective, as what may be a barrier for one person may not be for another (Marguc et al., 2011). The journey toward achieving a goal is long, and maintaining consistent effort and performance can be challenging. External or internal factors may disrupt this process (Gollwitzer & Sheeran, 2006).

Thus, despite high levels of effort and commitment, individuals may repeatedly face difficulties that lead them to question whether continuing to pursue the goal is worthwhile (Brandstätter & Herrmann, 2016; Milyavskaya & Werner, 2018). These doubts can result in what is known as an “*action crisis*”, an internal conflict where the person decides whether to keep striving for the goal or abandon it (Brandstätter & Herrmann, 2016). An action crisis can manifest as intense focus on problems, feelings of despair, confusion, overthinking, or procrastination (Brandstätter et al., 2013). For example, Vanda, who is actively searching for a job, may face numerous rejections and start doubting whether it’s worth continuing her job search. She begins to question if the effort will yield results and struggles with procrastination, delaying applications and interviews, which leads her to an action crisis regarding her career goal.

During an action crisis, an individual may start contemplating disengagement from a goal (Herrmann & Brandstätter, 2013). If the goal is still perceived as important and attainable, adjusting the strategy may be enough to continue pursuing it (Milyavskaya & Werner, 2018). However, if the goal is no longer seen as valuable or achievable, the individual may abandon it. Disengaging from a goal is marked by reduced commitment and effort, which can improve well-being, particularly if the goal was truly unattainable or insignificant (Wrosch et al., 2003). A positive outcome of an action crisis can also be the setting of a new, more realistic goal, which is a common occurrence in emerging adulthood, which is a period marked by identity formation and the clarification of values and priorities (Brandstätter & Herrmann, 2016). For instance, Vanda might realize that despite her strong desire to find a fulfilling job, repeated setbacks make her question whether her goal is realistic. If she sees it as unattainable, she may disengage and shift her focus to acquiring additional qualifications, setting a new goal that better aligns with her current situation and long-term career aspirations. In this process, uncertainty can play a crucial role, as the unpredictable nature of her career path can fuel her crisis and ultimately influence her decision to redefine her goals.

Intolerance of uncertainty

The life phase of emerging adulthood is filled with uncertainty, whether related to job searching, educational opportunities, or forming long-term relationships. This phase involves

key decisions about career paths and relationships, often requiring individuals to navigate unknowns, which can be challenging for those with high intolerance of uncertainty.

Uncertainty can be understood as an experience of the unknown (Gu et al., 2020) or as doubt about whether an event will occur (Keren & Gerritsen, 1999). It typically arises from ambiguous or incomplete information, where multiple interpretations are possible with varying degrees of certainty (Han et al., 2011; Kuang, 2017). Han et al. (2011) also identify other sources of uncertainty, such as probability, where the likelihood of an event is known, and complexity, where the available information is too difficult to fully understand. Uncertainty is generally perceived as negative (Carleton, 2016), leading individuals to try to minimize or eliminate it (Bokuniewicz, 2020).

Intolerance of uncertainty (IU) is a dispositional trait marked by difficulty tolerating uncertainty, often leading to anxiety and stress (Buhr & Dugas, 2002; Carleton et al., 2012). Emerging adults with high IU may experience increased anxiety and decision paralysis as they face major life choices (Dugas et al., 2005). Research identifies a two-factor structure of IU: prospective and inhibitory anxiety (Birrell et al., 2011; Bavořár, 2019; Carleton et al., 2007). In emerging adulthood, prospective anxiety may present as an overwhelming need to plan every aspect of one's future or engage in excessive information-seeking, driven by fear of uncertain outcomes. In contrast, inhibitory anxiety can result in avoidance behaviours, such as postponing important decisions like job applications or career changes due to fear of failure or the unknown (Birrell et al., 2011; Carleton et al., 2007; Hong & Lee, 2015). For instance, Vanda's high IU amplifies these anxieties, she overthinks job offers and delays decisions, fearing she will make the wrong choice. This leads to both prospective anxiety, causing her to obsessively gather information, and inhibitory anxiety, making it difficult for her to act when necessary.

Present research

Previous research suggests that intolerance of uncertainty may increase the likelihood of experiencing an action crisis, as individuals who struggle to tolerate uncertainty and unpredictability are more vulnerable to stress and indecision during goal pursuit (Kačmár et al., 2023). However, the psychological mechanisms through which intolerance of uncertainty contributes to action crisis remain underexplored. A promising explanatory pathway involves goal self-efficacy. Individuals with high intolerance of uncertainty often perceive uncertain situations as threatening, undermine their confidence in managing setbacks and reduce their sense of control over outcomes (Sagone & Indiana, 2023). This diminished self-efficacy may, in turn, impair persistence and resilience in goal pursuit, increasing the risk of becoming "stuck" in a state of internal conflict about whether to continue or abandon the goal (Qiang et al., 2024). Conversely, goal self-efficacy plays a protective role in the process of goal pursuit. High goal self-efficacy is associated with greater resilience and persistence, helping individuals sustain goal-directed behaviour even amid setbacks, thus reducing the likelihood and severity of an action crisis (Kačmár et al., 2024).

Taken together, these findings suggest not only a direct link between intolerance of uncertainty and action crisis, but also a possible indirect pathway through reduced goal self-efficacy. In our primary model, we examine whether goal self-efficacy measured concurrently with intolerance of uncertainty (both assessed at Time 1) mediates the relationship between intolerance of uncertainty and action crisis measured two years later (at Time 3). This approach assumes that intolerance of uncertainty, conceptualized as a relatively stable dispositional trait, can shape individuals' initial belief in their ability to reach a goal, which subsequently affects their vulnerability to action crisis over time. However, we also explore an alternative mediation model, in which goal self-efficacy is measured at Time 2, one year after the initial assessment of intolerance of uncertainty and one year before the assessment of action crisis. This model allows us to test whether intolerance of uncertainty may also have a delayed effect on goal self-efficacy, which in turn contributes to the development of an action crisis. To reflect the multidimensional nature of intolerance of uncertainty, we test both models using the two core dimensions of IU: prospective anxiety (i.e. fear of future uncertainty) and inhibitory anxiety (i.e. paralysis in the face of uncertainty). Based on theoretical grounds, we expect that both dimensions will show a similar pattern of relationships with goal self-efficacy and action crisis.

Concerning prospective anxiety (cf. Figure 1), we expect that higher levels of prospective anxiety will be associated with higher levels of action crisis (Hypothesis 1). We also expect that prospective anxiety will be negatively related to goal self-efficacy measured at Time 1 (Hypothesis 2a) and Time 2 (Hypothesis 2b). Furthermore, we expect that goal self-efficacy measured at Time 1 will be negatively associated with action crisis (Hypothesis 3a). We also expect the same negative relationship between goal self-efficacy measured at Time 2 and action crisis (Hypothesis 3b). We hypothesize that goal self-efficacy measured at Time 1 mediates the relationship between prospective anxiety and action crisis, reflecting an early, trait-like influence (Hypothesis 4a). We also examine whether goal self-efficacy measured at Time 2 plays a similar mediating role, reflecting a more proximal and dynamic process (Hypothesis 4b).

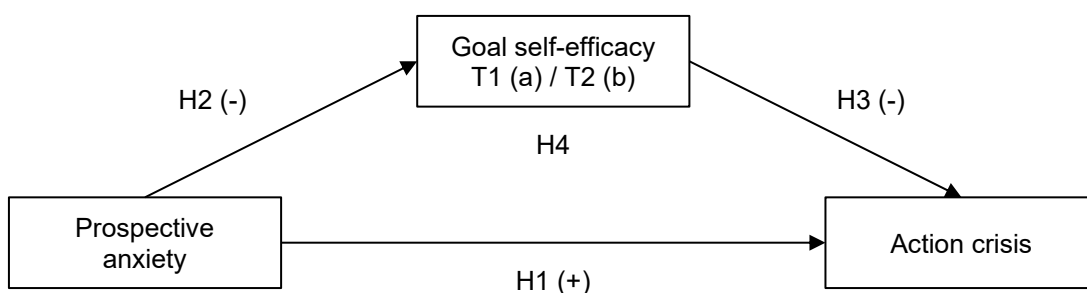


Figure 1. Mediation model: Prospective anxiety as predictor

Concerning inhibitory anxiety (cf. Figure 2), we expect that higher levels of inhibitory anxiety will be associated with higher levels of action crisis (Hypothesis 5). We also expect that inhibitory anxiety will be negatively related to goal self-efficacy measured at Time 1 (Hypothesis 6a) and Time 2 (Hypothesis 6b). Furthermore, we expect that goal self-efficacy measured at Time 1 will be negatively associated with action crisis (Hypothesis 7a). We also expect the same negative relationship between goal self-efficacy measured at Time 2 and action crisis (Hypothesis 7b). We hypothesize that goal self-efficacy measured at Time 1 mediates the relationship between inhibitory and action crisis, reflecting an early, trait-like influence (Hypothesis 8a). We also examine whether goal self-efficacy measured at Time 2 plays a similar mediating role, reflecting a more proximal and dynamic process (Hypothesis 8b).

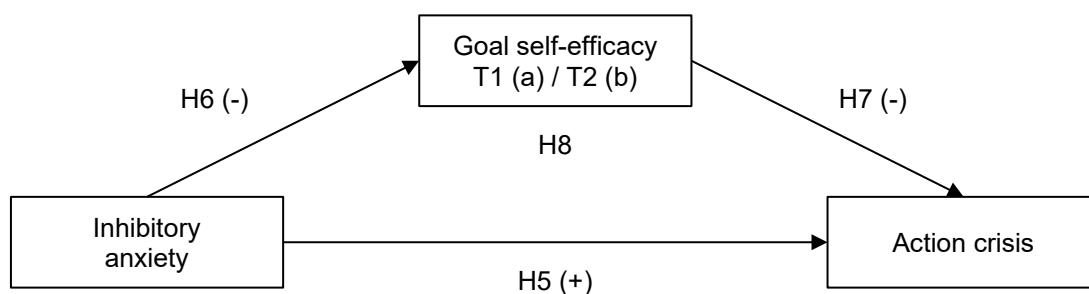


Figure 2. Mediation model: Inhibitory anxiety as predictor

Method

Sample

Data were collected in three waves, with approximately one year between each wave. The first wave (Time 1) of data collection included 672 respondents. However, by the third wave (Time 3), only 91 participants remained, yielding an attrition rate of 86%, which is notably high. Among these 91 participants, only 41 met the inclusion criteria, resulting in a final sample size of 41 respondents. Participants were included if they: (a) participated in all three waves of data collection; (b) consistently pursued the same personal goal throughout the entire period without abandoning, changing, or achieving it; and (c) were between the ages of 18 and 30 during the entire study period. Within this sample, 31 participants (75.6%) were women, and the mean age was 25.4 years ($SD = 3.44$). For the analyses, self-efficacy was measured using data from the first (Time 1) and second (Time 2) waves. In the second wave, four participants stated their goals but did not complete all goal characteristic ratings. Therefore, analyses using self-efficacy from wave one included all 41 participants, while analyses using self-efficacy from wave two included only 37 participants.

Study design

To establish temporal precedence, we implemented a longitudinal design with three waves of data collection, each occurring approximately one year apart. The first wave was conducted through an external agency, while the second and third waves involved re-contacting only those participants who had previously consented to be followed up via email. Participants' work-related goals and relevant psychological constructs were assessed across all three waves of data collection. Ethical approval for the study was granted by the Ethics Committee of Pavol Jozef Safarik University in Kosice.

For this study, intolerance of uncertainty was measured at Time 1, consistent with the assumption that it reflects a relatively stable dispositional trait. Goal self-efficacy was assessed at both Time 1 and Time 2, allowing us to examine its role both as an initial belief shaped by dispositional intolerance of uncertainty and as a more dynamic construct that may evolve over time. Action crisis was measured only at Time 3 to capture its potential delayed emergence during goal pursuit.

Measures

Goals

At each stage, participants were asked to report their current work-related goal, if they had one. In the second and third waves, participants were shown the goal they had previously reported (retrieved using their personal code) and asked whether they were still pursuing the same goal, had achieved it, had abandoned it, or had changed it. This procedure allowed us to verify goal consistency across measurement points. Only participants who consistently pursued the same goal across all three waves (without changing, achieving, or abandoning it) were included in the final sample.

Goal self-efficacy

Goal self-efficacy was measured using a three-item scale, rated on a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). An example item is: "I have the necessary energy to attain this goal" (Pomaki et al., 2009). The reliability of the scale at Time 1 was high, with a Cronbach's α of 0.83 and McDonald's ω of 0.83, at Time 2 the scale yielded similar results with a Cronbach's α of 0.82 and McDonald's ω also of 0.82.

Action crisis

Action crisis was assessed with a five-item scale, also rated on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). An example item is: "When striving for this goal, I am repeatedly confronted with situations where I do not know how to continue"

(Brandstätter & Schüler, 2013; Kačmár et al., 2023). The internal consistency of this scale was acceptable, with Cronbach's $\alpha = 0.76$ and McDonald's $\omega = 0.77$.

Intolerance of uncertainty

The Intolerance of Uncertainty Scale was used to assess participants' responses to uncertain situations. This 12-item scale consists of two subscales: prospective anxiety (7 items, e.g. "It frustrates me not having all the information I need") and inhibitory anxiety (5 items, e.g. "When I am uncertain, I can't function very well"). Both subscales demonstrated good internal consistency, with Cronbach's α and McDonald's ω values of 0.78 for prospective anxiety, and 0.85 for inhibitory anxiety.

Statistical analyses

All variables were approximately normally distributed, allowing for the use of parametric statistical methods. To examine whether goal self-efficacy mediates the relationship between intolerance of uncertainty and action crisis, we tested four mediation models. In two models, prospective anxiety served as the predictor, with self-efficacy from Time 1 and Time 2 as mediators, respectively. In the remaining two models, inhibitory anxiety was used as the predictor, again with self-efficacy from Time 1 and Time 2 as mediators. In all models, action crisis measured at Time 3 served as the outcome variable. Mediation analyses were conducted using bootstrapping with 5000 samples. Missing data were handled through listwise deletion; no imputation methods were used, and participants with incomplete data were excluded from the analyses.

Results

Table 1 presents the descriptive statistics and the correlation matrix for all main study variables, including goal self-efficacy from Time 1 and Time 2, action crisis, and two subcomponents of intolerance of uncertainty: prospective and inhibitory anxiety.

Table 1. Descriptive statistics and correlations for study variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1 Goal self-efficacy (Time 1)	15.76	4.27		.78***	-.47**	-.39*	-.56***
2 Goal self-efficacy (Time 2)	15.16	3.96			-.40*	-.17	-.46**
3 Action crisis (Time 3)	18.77	6.55				.34*	.37*
4 Prospective anxiety (Time 1)	21.28	5.34					.65***
5 Inhibitory anxiety (Time 1)	14.56	4.94					

Notes. * $p < .05$; ** $p < .01$; *** $p < .001$.

Notably, goal self-efficacy from both Time 1 and Time 2 shows negative, strong and significant relationship with action crisis, $r = -.47, p = .005$, and $r = -.40, p = .020$, respectively, and inhibitory anxiety, $r = -.56, p < .001$, and $r = -.46, p = .004$, respectively. Additionally, goal self-efficacy from Time 1 shows negative, moderate and significant relationship with prospective anxiety, $r = -.39, p = .012$. However, the relationship between goal self-efficacy from Time 2 and prospective anxiety is non-significant, $r = -.17, p = .316$. Furthermore, action crisis has a positive, moderate and significant relationship with both prospective anxiety, $r = .34, p = .022$, and inhibitory anxiety, $r = .37, p = .012$.

Table 2 presents mediation analysis results with prospective anxiety as predictor and self-efficacy from Time 1 as a mediator, including the indirect, direct, and total effects, as well as the specific paths (a, b, and c'). The indirect effect, $b = 0.15, p = .073$, and the direct effect, $b = 0.26, p = .212$, are not statistically significant, indicating that neither the mediated nor direct paths show strong effects. Consequently, the total effect is also non-significant, $b = 0.41, p = .072$. However, in examining the individual path estimates, both a and b paths show significant results. Path a, $b = -0.24, p = .019$, and path b, $b = -0.62, p = .004$, are both significant. However, an examination of the individual path estimates reveals that both the a path (from prospective anxiety to goal self-efficacy, $b = -0.24, p = .019$, and the b path (from goal self-efficacy to action crisis, $b = -0.62, p = .004$, are statistically significant.

Table 2. Prospective anxiety as predictor and goal self-efficacy from Time 1 as mediator

Effect	<i>b</i>	<i>SE</i>	95% <i>CI</i>		<i>Z</i>	<i>p</i>
			<i>LL</i>	<i>UL</i>		
Mediation estimates						
Indirect	0.15	0.08	0.00	0.33	1.79	.073
Direct	0.26	0.21	-0.19	0.61	1.25	.212
Total	0.41	0.23	-0.10	0.78	1.80	.072
Path estimates						
a	-0.24*	0.10	-0.42	-0.01	-2.35	.019
b	-0.62**	0.22	-1.06	-0.18	-2.85	.004
c'	0.26	0.21	-0.19	0.61	1.25	.212

Notes. * $p < .05$; ** $p < .01$

Table 3 shows mediation analysis results with prospective anxiety as predictor and self-efficacy from Time 2 as a mediator, including indirect, direct, and total effects, along with individual path estimates (a, b, and c'). The indirect effect, $b = 0.10, p = .238$, and the direct effect, $b = 0.31, p = .166$, are not statistically significant, indicating that neither the mediated nor direct paths show strong effects. Consequently, the total effect is also non-significant, $b = 0.42, p = .071$. Among the path estimates, only path b is statistically significant, $b = -0.60, p = .025$, suggesting a meaningful association within this part of the model. Path a and the direct path c' remain non-significant, consistent with the overall lack of mediation effect.

Table 3. Prospective anxiety as predictor and goal self-efficacy from Time 2 as mediator

Effect	<i>b</i>	<i>SE</i>	95% <i>CI</i>		<i>Z</i>	<i>p</i>
			<i>LL</i>	<i>UL</i>		
Mediation estimates						
Indirect	0.10	0.09	-0.05	0.30	1.18	.238
Direct	0.31	0.23	-0.20	0.68	1.38	.166
Total	0.42	0.23	-0.12	0.79	1.81	.071
Path estimates						
<i>a</i>	-0.18	0.12	-0.38	0.08	-1.52	.129
<i>b</i>	-0.60*	0.27	-1.08	-0.01	-2.24	.025
<i>c'</i>	0.31	0.23	-0.20	0.68	1.38	.166

Notes. **p* < .05

Table 4 provides mediation analysis results with inhibitory anxiety as predictor and self-efficacy from Time 1 as a mediator, including indirect, direct, and total effects, along with individual path estimates (*a*, *b*, and *c'*). The significant indirect effect, *b* = 0.34, *p* = .022, indicates a meaningful mediation pathway, where the indirect effect significantly contributes to the overall relationship. The direct effect, *b* = 0.00, *p* = .999, and total effect, *b* = 0.34, *p* = .236, are non-significant. Among the path estimates, both *a*, *b* = -0.45, *p* < .001, and *b*, *b* = -0.74, *p* = .004, are significant, supporting the indirect effect's influence. Path *c'*, the direct path, is nonsignificant, aligning with the overall mediation effect conclusion.

Table 4. Inhibitory anxiety as predictor and goal self-efficacy from Time 1 as mediator

Effect	<i>b</i>	<i>SE</i>	95% <i>CI</i>		<i>Z</i>	<i>p</i>
			<i>LL</i>	<i>UL</i>		
Mediation estimates						
Indirect	0.34*	0.15	0.08	0.67	2.28	.022
Direct	0.00	0.30	-0.66	0.49	0.00	.999
Total	0.34	0.29	-0.31	0.80	1.19	.236
Path estimates						
<i>a</i>	-0.45***	0.14	-0.73	-0.17	-3.29	.001
<i>b</i>	-0.74**	0.26	-1.30	-0.26	-2.91	.004
<i>c'</i>	0.00	0.30	-0.66	0.49	0.00	.999

Notes. **p* < .05; ***p* < .01; ****p* < .001.

Table 5 presents mediation analysis results with inhibitory anxiety as predictor and self-efficacy from Time 2 as a mediator, including the indirect, direct, and total effects, as well as the specific paths (*a*, *b*, and *c'*). The indirect effect, *b* = 0.26, *p* = .067, is not statistically significant. The direct effect, *b* = 0.53, *p* = .033, and total effect, *b* = 0.79, *p* < .001, are significant. These results suggest that while the overall relationship is significant, the mediation through self-efficacy is not supported in this model. In examining the individual

path estimates, all *a*, *b* and *c'* paths show significant results. Path *a*, $b = -0.37$, $p = .001$, and path *b*, $b = -0.70$, $p = .039$, and *c'*, $b = 0.53$, $p = .033$. This pattern of results points to a partial mediation, where the mediator contributes to the effect but does not fully account for the relationship between inhibitory anxiety and the outcome.

Table 5. Inhibitory anxiety as predictor and goal self-efficacy from Time 2 as mediator

Effect	<i>b</i>	<i>SE</i>	95% <i>CI</i>		<i>Z</i>	<i>p</i>
			<i>LL</i>	<i>UL</i>		
Mediation estimates						
Indirect	0.26	0.14	-0.01	0.54	1.83	.067
Direct	0.53*	0.25	-0.02	0.97	2.13	.033
Total	0.79***	0.20	0.30	1.90	4.20	<.001
Path estimates						
<i>a</i>	-0.37**	0.12	-0.60	-0.13	-3.20	.001
<i>b</i>	-0.70*	0.34	-1.30	0.02	-2.06	.039
<i>c'</i>	0.53*	0.25	-0.02	0.97	2.13	.033

Notes. * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

In emerging adulthood – the period between adolescence and young adulthood – many young people begin to independently manage key areas of life, including work, finances and relationships (Arnett, 2014; Shulman & Nurmi, 2010). This period is marked by identity exploration, a process in which individuals clarify values, set goals, and take responsibility for achieving them, which are the key steps in the journey toward adulthood (Marttinen et al., 2016; Shulman & Nurmi, 2010). Typically, emerging adults set career-related goals, as entering the workforce is a major developmental task during this time (Arnett, 2014; Dietrich et al., 2013; Kvasková et al., 2020; Ranta et al., 2014; Turner et al., 2014). However, given the instability and uncertainty characteristic of this phase, attitudes toward uncertainty, and the ability to manage it, likely play a crucial role in their ability to persist in their goals.

For instance, perceiving uncertain situations as threatening can lower goal self-efficacy (confidence in one's own abilities to achieve a goal) as predictability and control are essential to feeling capable (Bandura, 1997; Carleton, 2016). When individuals believe they can influence outcomes, they are more confident in acting (Bandura, 1989). However, high intolerance of uncertainty disrupts this confidence, leading to stress, reduced goal self-efficacy, and avoidance in goal-oriented tasks. For those highly intolerant of uncertainty, unpredictable situations are particularly distressing, diminishing their perceived control and persistence (Sagone & Indiana, 2023). This discomfort often drives avoidance behaviours, such as procrastination and decision avoidance, as short-term relief from anxiety. Yet these behaviours

reinforce a cycle of uncertainty, further lowering goal self-efficacy (Carleton, 2016; Qiang et al., 2024).

Based on these dynamics, we hypothesized that IU, more specifically its dimensions of prospective anxiety, which drives individuals to seek detailed information and meticulously plan; and inhibitory anxiety, which leads to inaction in the face of uncertainty (Birrell et al., 2011; Carleton et al., 2007; Hong & Lee, 2015) would be associated with lower goal self-efficacy. Additionally, we anticipated that dimensions of IU would predict a greater occurrence of action crises over time, with goal self-efficacy potentially mediating this relationship.

Our initial analysis focused on examining the correlations between prospective and inhibitory anxiety – and goal self-efficacy as well as an action crisis. We found that higher inhibitory anxiety, characterized by inaction in uncertain situations, correlates with reduced goal self-efficacy, consistent with expectations that avoidance behaviours can undermine confidence (Carleton, 2016; Qiang et al., 2024). One explanation is the absence of positive problem-solving experiences, which limits the reinforcement of coping skills. Another possibility is that inhibitory anxiety may amplify perceived threats in uncertain situations, reinforcing self-doubt and diminishing the motivation to persist through challenges, ultimately impacting goal self-efficacy. The relationship between goal self-efficacy and prospective anxiety, which is driven by a need for predictability, was negative, moderate and statistically significant, only in case of self-efficacy from Time 1. This may reflect those individuals who excessively seek information feel less confident in handling situations without full comprehension of potential outcomes. However, this effect is lower compared to an effect of inhibitory anxiety. Overall, this indicates that individuals who view uncertain situations as more threatening generally report lower confidence in their goal attainment abilities. Studies suggest that high intolerance of uncertainty is associated with increased anxiety, potentially leading to self-regulatory exhaustion and a reduction in the cognitive resources needed to maintain goal self-efficacy (Sagone & Indiana, 2023; Qiang et al., 2024).

A moderate positive correlation emerged between action crisis and both prospective and inhibitory anxiety. The observed trend aligns with expectations: individuals who view uncertainty as threatening tend to experience greater action crisis. When uncertainty is perceived as a threat, individuals are more likely to reevaluate, hesitate, and critically reflect on their goals, potentially amplifying feelings of self-doubt and reducing motivation to pursue their objectives (Birrell et al., 2011; Carleton, 2016). This re-evaluation process may prompt disengagement from goals, especially if a sense of uncertainty interferes with an individual's confidence in achieving them. For those with heightened IU, the frequent need to resolve uncertainty could drain cognitive and emotional resources, further fostering an action crisis by shifting focus from goal achievement to anxiety about potential outcomes.

The next association we looked at was between self-efficacy in both cases and action crisis, where a strong, negative relationship was found. In other words, individuals who believed more in their ability to achieve their goals tended to experience lower levels of action crisis. This finding aligns with previous research, for instance, Kačmár et al. (2024) point out that

self-efficacy is often linked to greater resilience and persistence, which can help people navigate obstacles and reduce the likelihood of experiencing action crisis. Similarly, Locke and Latham (2002) found that individuals with higher self-efficacy tend to be more committed, choose more effective goal attainment strategies, and respond better to negative feedback.

Next, we examined whether prospective anxiety contributes to higher levels of action crisis through reduced goal self-efficacy. To test this assumption, we conducted two mediation models that differed in the timing of the mediator. In both models, prospective anxiety measured at Time 1 was entered as the predictor, while goal self-efficacy was assessed either concurrently (Time 1) or one year later (Time 2). Action crisis was consistently measured at Time 3.

Across both models, neither the indirect nor the direct effect of prospective anxiety on action crisis reached statistical significance, contrary to our initial expectations. In fact, neither model showed a significant association between prospective anxiety and action crisis, leading us to reject Hypothesis H1. However, when goal self-efficacy was measured at Time 1, both individual path estimates, path a (linking prospective anxiety to self-efficacy) and path b (linking self-efficacy to action crisis), were statistically significant, suggesting a potential, though weak, mediating process and support for hypotheses H2a and H3a. In contrast, when goal self-efficacy was measured at Time 2, only path b remained significant, consistent with Hypothesis H3b while the effect of prospective anxiety on later self-efficacy (path a) was no longer supported, inconsistent with Hypothesis H2b.

This discrepancy may reflect the fact that prospective anxiety impacts goal self-efficacy primarily at the initial stages of goal pursuit, but as time passes, their self-efficacy becomes more shaped by actual experiences with the goal rather than initial dispositions. Moreover, prospective anxiety, which is characterized by future-oriented worry and information-seeking, may function as a proactive coping strategy, which could help individuals maintain a sense of control despite uncertainty, thereby weakening its negative impact on self-efficacy. These interpretations may help to explain why hypotheses H4a and H4b were not supported. Finally, the relatively small sample size in our study may have further limited our ability to detect more subtle indirect effects.

The third and the fourth model used inhibitory anxiety as the predictor. In the third model, self-efficacy from Time 1 was used. In this model a significant indirect effect supported goal self-efficacy's mediating role in the model and therefore hypotheses H6a and H7a. Both path estimates (a and b) were significant, supporting the indirect-only mediation effect and Hypothesis H8a. Consistent with our expectations (Carleton, 2016; Sagone & Indiana, 2023), emerging adults with a tendency to "freeze" in uncertain situations often doubt their ability to achieve their goals, intensifying the experience of an action crisis.

In contrast, the fourth model showed a non-significant indirect effect and significant direct and total effects, along with all individual path estimates being significant. These results partially support hypotheses H5b, H6b, and H7b, as the direct path from inhibitory anxiety to

action crisis (H5b), the path from inhibitory anxiety to lower self-efficacy (H6b), and the path from self-efficacy to lower action crisis (H7b) were all statistically significant. However, Hypothesis H8b was not supported, as the overall indirect effect did not reach statistical significance. There can be several explanations for this discrepancy. Firstly, although Time 2 self-efficacy is more proximal to the action crisis measurement (both occurring later in the study), it may also be more reactive to ongoing experiences and less shaped by the earlier predictor (inhibitory anxiety). As a result, its mediating role could be weaker or less stable. Contrary, self-efficacy at Time 1 may reflect more stable goal-related beliefs formed at the outset, which are more directly influenced by inhibitory anxiety and continue to shape goal engagement across time. Thus, it may serve as a stronger mediator, even over a longer period. Secondly, the Time 2 model includes fewer participants ($N = 37$) due to missing data, which may reduce statistical power to detect indirect effects. The larger standard errors and borderline significance of the indirect effect ($p = .067$) may reflect this limitation. Finally, as time passes, other unmeasured factors (e.g. life events, changes in goal importance, or support systems) may influence self-efficacy and action crisis, potentially diluting the mediating effect of self-efficacy from Time 2. This could explain why the direct path from inhibitory anxiety to action crisis remains significant in this model.

Intolerance of uncertainty leads individuals to experience uncertain situations as potentially risky. Our results partially support the notion that when someone consistently feels threatened and uncertain, especially when their reaction to this uncertainty is to freeze or avoid making decisions, they are less likely to believe in their ability to achieve their goals, as these negative expectations can erode self-confidence (Bandura, 1997; Carleton, 2016; Sagone & Indiana, 2023). For young people, who are still developing their skills for handling challenging situations (Arnett, 2014; Marttinen et al., 2016), this negative perception of uncertainty can be detrimental to goal self-efficacy. Furthermore, our findings supported the idea that when goal self-efficacy is low, individuals are more prone to doubting their goals' attainability (Kačmár et al., 2024). This internal conflict often leads to an action crisis, a state where individuals begin to question the significance, value, or attainability of their goals (Brandstätter & Herrmann, 2016).

Methodological limitations

While the study offers valuable findings and benefits from a longitudinal design, several limitations should be acknowledged. The most significant limitation is the small sample size of 41 respondents, a result of attrition over the study period. This limited sample size raises concerns regarding the power of the analyses, where results may be prone to type II error. Consequently, replication of these findings with a larger sample is necessary to confirm these preliminary insights. Additionally, the sample was largely homogeneous, with 75.6% of participants identifying as female. Future research should aim to recruit a larger and more balanced sample. Exploring these findings through qualitative methods could also offer further depth and understanding.

Practical implications

Emerging adults often lack extensive experience, leading to heightened feelings of insecurity as they navigate the unfamiliar terrain of the labour market. Organizations can support these individuals by providing clear, structured tasks and transparent, consistent communication, which helps reduce uncertainty and fosters a sense of predictability. By offering guidance, constructive feedback, and opportunities to clarify tasks, organizations can empower young employees, making them more likely to succeed in their roles. This structured support not only enhances their goal self-efficacy but also builds confidence as they begin to experience achievement in their work. Furthermore, young people who understand the purpose and impact of their tasks are more likely to feel a sense of meaning in their work, bolstering their intrinsic motivation. This combination of clarity, goal self-efficacy, and meaningful engagement contributes to greater resilience, enabling them to manage obstacles and persist in goal pursuit. Organizations may also consider mentorship programs or workshops on managing uncertainty to strengthen young employees' coping skills. Investing in these strategies not only benefits young workers but also creates a more adaptive, motivated workforce that can thrive despite challenges.

Conclusion

To summarize, the purpose of this study was to explore the relationship between components of intolerance of uncertainty (prospective and inhibitory anxiety) with goal self-efficacy and action crisis within the context of work-related, goal-oriented behaviours. Emerging adulthood is a period often marked by high uncertainty, posing challenges for individuals with high IU. Goal self-efficacy relies on a sense of control and predictability, which may be compromised in uncertain situations, potentially leading to reduced goal self-efficacy (Bandura, 1997; Carleton, 2016; Sagone & Indiana, 2023). Reduced goal self-efficacy, in turn, can contribute to an action crisis, as demonstrated by prior research (Brands et al., 2014; Hu et al., 2023; Kačmár et al., 2024; Pomaki et al., 2009).

We hypothesized that goal self-efficacy, measured at the same time as IU and measured a year later, would mediate the relationship between IU components and action crisis, with both high prospective and inhibitory anxiety predicting lower goal self-efficacy, subsequently leading to action crisis. Across all four models tested, full mediation was observed only in one case: when inhibitory anxiety was used as the predictor and goal self-efficacy measured at Time 1 served as the mediator. In this model, both individual paths (a and b) and the indirect effect were statistically significant, suggesting that a dispositional tendency to freeze in the face of uncertainty may undermine initial beliefs in goal attainment, thereby increasing vulnerability to action crisis over time. In the remaining models, no full mediation emerged. For prospective anxiety, goal self-efficacy did not emerge as a significant mediator, regardless of whether it was measured at Time 1 or Time 2. However, a closer look reveals a detailed picture: when goal self-efficacy was assessed at Time 1, both path a (from prospective anxiety to self-efficacy) and

path b (from self-efficacy to action crisis) were statistically significant, yet the overall indirect effect was not. This suggests a potential, albeit weak, mediating process that failed to reach significance at the effect level, possibly due to limited statistical power. When self-efficacy was measured at Time 2, only path b remained significant, and path a dropped out, further weakening the mediation pathway. Similarly, when inhibitory anxiety was paired with self-efficacy from Time 2, the indirect effect was not significant, despite all paths being individually significant. This pattern highlights the potential temporal sensitivity of the mediating role of self-efficacy and suggests that its predictive value may be strongest when assessed concurrently with relatively stable dispositional traits, such as intolerance of uncertainty. Taken together, the findings provide only partial support for the proposed mediation mechanism and point to inhibitory anxiety as the more robust predictor in this context. However, the overall pattern may also reflect the limitations of our sample size, particularly in later waves, which could have reduced the power to detect subtler indirect effects.

For example, consider Vanda, an emerging adult striving for employment and financial independence. Faced with repeated setbacks and an uncertain future, she may begin to feel overwhelmed and emotionally paralyzed, a reaction characteristic of inhibitory anxiety. Rather than actively seeking new opportunities or solutions, she might freeze or avoid making important decisions. This reaction can erode her belief in her ability to achieve her goal, especially if she lacks previous experience and confidence as a recent graduate. Diminished goal self-efficacy can trigger doubts about the attainability and value of her goal, potentially leading to an action crisis or even disengagement. In some cases, letting go of an unattainable goal may be adaptive, allowing her to redirect her efforts toward more realistic and rewarding objectives (Brandstätter & Herrmann, 2016). However, frequent goal failure can also have long-term consequences, such as persistently low goal self-efficacy, which may hinder her motivation and resilience in future pursuits (Salmela-Aro et al., 2008). Additionally, to restore her self-image, Vanda might feel an increased pressure to succeed at least once, heightening her commitment to new goals. This heightened need for success can lead to maladaptive self-regulation. Instead of flexibly disengaging from an unworkable goal or re-engaging with a better one, she may remain stuck in ineffective strategies, unable to break the cycle of inaction and uncertainty.

Acknowledgements

Both authors contributed equally to this research, engaging in all aspects from conceptualization to data analysis and writing.

We express our sincere gratitude for the financial support provided through grants APVV-19-0284 and APVV-23-0548, which facilitated the research presented in this article. The contributions of these funding sources were invaluable to the successful completion of this work.

References

- Arnett, J. J. (2005). The developmental context of substance use in emerging adulthood. *Journal of Drug Issues, 35*(2), 235–254. <https://doi.org/10.1177/002204260503500202>
- Arnett, J. J. (2014). *Emerging adulthood: The winding road from the late teens through the twenties*. Oxford University Press.
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin, 120*(3), 338–375. <https://doi.org/10.1037/0033-2909.120.3.338>
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175–1184. <https://doi.org/10.1037/0003-066x.44.9.1175>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman & Company.
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology, 88*(1), 87–99. <https://doi.org/10.1037/0021-9010.88.1.87>
- Bavořár, J. (2019). The Intolerance of Uncertainty Scale – psychometric characteristics of the Slovak version, associations with related constructs and applications in work psychology. In J. Procházka, T. Kratochvíl, M. & Vaculík (Eds.), *Psychologie práce a organizace. Sborník příspěvků z 18. mezinárodní konference* (pp. 12–21). Masarykova univerzita.
- Billari, F. C. (2001). The analysis of early life courses: Complex descriptions of the transition to adulthood. *Journal of Population Research, 18*(2), 119–142. <https://doi.org/10.1007/BF03031885>
- Birrell, J., Meares, K., Wilkinson, A., & Freeston, M. (2011). Toward a definition of intolerance of uncertainty: A review of factor analytical studies of the Intolerance of Uncertainty Scale. *Clinical Psychology Review, 31*(7), 1198–1208. <https://doi.org/10.1016/j.cpr.2011.07.009>
- Bokuniewicz, S. (2020). Tolerance of uncertainty and ambiguity of the situation and anxiety as a state and as a feature. *Journal of Education, Culture, and Society, 11*(2), 224–236. <https://doi.org/10.15503/jecs2020.2.224.236>
- Brands, I., Stapert, S., Köhler, S., Wade, D., & van Heugten, C. (2014). Life goal attainment in the adaptation process after acquired brain injury: The influence of self-efficacy and of flexibility and tenacity in goal pursuit. *Clinical Rehabilitation, 29*(6), 611–622. <https://doi.org/10.1177/0269215514549484>
- Brandstätter, V., & Schüler, J. (2013). Action crisis and cost-benefit thinking: A cognitive analysis of a goal-disengagement phase. *Journal of Experimental Social Psychology, 49*(3), 543–553. <https://doi.org/10.1016/j.jesp.2012.10.004>
- Brandstätter, V., & Herrmann, M. (2016). Goal disengagement in emerging adulthood: The adaptive potential of action crises. *International Journal of Behavioral Development, 40*(2), 117–125. <https://doi.org/10.1177/0165025415597550>
- Brandstätter, V., Herrmann, M., & Schüler, J. (2013). The struggle of giving up personal goals: Affective, physiological, and cognitive consequences of an action crisis. *Personality and Social Psychology Bulletin, 39*(12), 1668–1682. <https://doi.org/10.1177/0146167213500151>
- Buhr, K., & Dugas, M. J. (2002). The intolerance of uncertainty scale: Psychometric properties of the English version. *Behaviour Research and Therapy, 40*(8), 931–945. [https://doi.org/10.1016/S0005-7967\(01\)00092-4](https://doi.org/10.1016/S0005-7967(01)00092-4)
- Carleton, R. N. (2016). Into the unknown: A review and synthesis of contemporary models involving uncertainty. *Journal of Anxiety Disorders, 39*, 30–43. <https://doi.org/10.1016/j.janxdis.2016.02.007>

- Carleton, R. N., Mulvogue, M. K., Thibodeau, M. A., McCabe, R. E., Antony, M. M., & Asmundson, G. J. G. (2012). Increasingly certain about uncertainty: Intolerance of uncertainty across anxiety and depression. *Journal of Anxiety Disorders*, 26(3), 468–479. <https://doi.org/10.1016/j.janxdis.2012.01.011>
- Carleton, R. N., Norton, M. A. P. J., & Asmundson, G. J. G. (2007). Fearing the unknown: A short version of the Intolerance of Uncertainty Scale. *Journal of Anxiety Disorders*, 21(1), 105–117. <https://doi.org/10.1016/j.janxdis.2006.03.014>
- Dietrich, J., Shulman, S., & Nurmi, J. E. (2013). Goal pursuit in young adulthood: The role of personality and motivation in goal appraisal trajectories across 6 years. *Journal of Research in Personality*, 47(6), 728–737. <https://doi.org/10.1016/j.jrp.2013.06.004>
- Dugas, M. J., Hedayati, M., Karavidas, A., Buhr, K., Francis, K., & Philips, N. A. (2005). Intolerance of uncertainty and information processing: Evidence of biased recall and interpretations. *Cognitive Therapy and Research*, 29(1), 57–70. <https://doi.org/10.1007/s10608-005-1648-9>
- Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 38, pp. 69–119). Elsevier Academic Press. [https://doi.org/10.1016/S0065-2601\(06\)38002-1](https://doi.org/10.1016/S0065-2601(06)38002-1)
- Gu, Y., Gu, S., Lei, Y., & Li, H. (2020). From uncertainty to anxiety: How uncertainty fuels anxiety in a process mediated by intolerance of uncertainty. *Neural Plasticity*, 8866386. <https://doi.org/10.1155/2020/8866386>
- Han, P. K., Klein, W. M., & Arora, N. K. (2011). Varieties of uncertainty in health care: A conceptual taxonomy. *Medical Decision Making*, 31(6), 828–838. <https://doi.org/10.1177/0272989X10393976>
- Herrmann, M., & Brandstätter, V. (2013). Overcoming action crises in personal goals – Longitudinal evidence on a mediating mechanism between action orientation and well-being. *Journal of Research in Personality*, 47(6), 881–893. <https://doi.org/10.1016/j.jrp.2013.09.005>
- Hong, R. Y., & Lee, S. S. M. (2015). Further clarifying prospective and inhibitory intolerance of uncertainty: Factorial and construct validity of test scores from the Intolerance of Uncertainty Scale. *Psychological Assessment*, 27(2), 605–620. <https://doi.org/10.1037/pas0000074>
- Hu, X., Zhang, H., & Geng, M. (2023). Letting go or giving up? The influence of self-transcendence meaning of life on goal adjustment in high action crisis. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1054873>
- Kačmár, P., Versolker, N. R., & Falah, H. (2024). Hero in action (crisis): The role of psychological capital in experiencing an action crisis. *Current Psychology*, 43(38), 30038–30060. <https://doi.org/10.1007/s12144-024-06524-1>
- Kačmár, P., Wolf, B., Bavoľár, J., Schrötter, J., & Lovaš, L. (2023). S-ACRIS R: Slovak adaptation of the action crisis scale. *Current Psychology*, 42(21), 18317–18332. <https://doi.org/10.1007/s12144-022-02955-w>
- Keller, L., Bieleke, M., & Gollwitzer, P. M. (2019). Mindset theory of action phases and if-then planning. In K. Sassenberg & M. Viek (Eds.), *Social psychology in action* (pp. 23–36). Springer Cham. https://doi.org/10.1007/978-3-030-13788-5_2
- Keren, G., & Gerritsen, L. E. M. (1999). On the robustness and possible accounts of ambiguity aversion. *Acta Psychologica*, 103(12), 149172. [https://doi.org/10.1016/S0001-6918\(99\)00034-7](https://doi.org/10.1016/S0001-6918(99)00034-7)
- Kuang, K. (2017). Reconceptualizing uncertainty in illness: Commonalities, variations, and the multidimensional nature of uncertainty. *Annals of the International Communication Association*, 42(3), 181–206. <https://doi.org/10.1080/23808985.2018.1492354>
- Kvasková, L., Širůček, J., Ježek, S., Hrubá, L., Lacinová, L., & Macek, P. (2020). Personal goals and identity of Czech university students. *Emerging Adulthood*, 10(2), 354–359. <https://doi.org/10.1177/2167696820917813>

- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57*(9), 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Luyckx, K., De Witte, H., & Goossens, L. (2011). Perceived instability in emerging adulthood: The protective role of identity capital. *Journal of Applied Developmental Psychology, 32*(3), 137–145. <https://doi.org/10.1016/j.appdev.2011.02.002>
- Luyckx, K., Seiffge-Krenke, I., Schwartz, S. J., Crocetti, E., & Klimstra, T. (2014). Identity configurations across love and work in emerging adults in romantic relationships. *Journal of Applied Developmental Psychology, 35*(3), 192–203. <https://doi.org/10.1016/j.appdev.2014.03.007>
- Macek, P., Bejček, J., & Vaničková, J. (2007). Contemporary Czech emerging adults: Generation growing up in the period of social changes. *Journal of Adolescent Research, 22*(5), 444–475. <https://doi.org/10.1177/0743558407305417>
- Marguc, J., Förster, J., & Van Kleef, G. A. (2011). Stepping back to see the big picture: When obstacles elicit global processing. *Journal of Personality and Social Psychology, 101*(5), 883–901. <https://doi.org/10.1037/a0025013>
- Marttinen, E., Dietrich, J., & Salmela-Aro, K. (2016). Dark shadows of rumination: Finnish young adults' identity profiles, personal goals and concerns. *Journal of Adolescence, 47*(1), 185–196. <https://doi.org/10.1016/j.adolescence.2015.10.024>
- Milyavskaya, M., & Werner, K. M. (2018). Goal pursuit: Current state of affairs and directions for future research. *Psychologie Canadienne [Canadian Psychology], 59*(2), 163–175. <https://doi.org/10.1037/cap0000147>
- Nelson, L. J., & Barry, C. M. (2005). Distinguishing features of emerging adulthood: The role of self-classification as an adult. *Journal of Adolescent Research, 20*(2), 242–262. <https://doi.org/10.1177/0743558404273074>
- Niesta, D., & Elliot, A. (2009). Goals in the context of the hierarchical model of approach-avoidance motivation. In G. B. Moskowitz & H. Grant (Eds.), *The psychology of goals* (pp. 56–76). The Guilford Press.
- Nurmi, J.E., Salmela-Aro, K., & Koivisto, P. (2002). Goal importance, and related agency-beliefs and emotions during the transition from vocational school to work: Antecedents and consequences. *Journal of Vocational Behavior, 60*(2), 241–261. <https://doi.org/10.1006/jvbe.2001.1866>
- Pomaki, G., Karoly, P., & Maes, S. (2009). Linking goal progress to subjective well-being at work: The moderating role of goal-related self-efficacy and attainability. *Journal of Occupational Health Psychology, 14*(2), 206–218. <https://doi.org/10.1037/a0014605>
- Qiang, J., He, X., Xia, Z., Huang, J., & Xu, C. (2024). The association between intolerance of uncertainty and academic burnout among university students: The role of self-regulatory fatigue and self-compassion. *Frontiers in Public Health, 12*. <https://doi.org/10.3389/fpubh.2024.1441465>
- Ranta, M., Dietrich, J., & Salmela-Aro, K. (2014). Career and romantic relationship goals and concerns during emerging adulthood. *Emerging Adulthood, 2*(1), 17–26. <https://doi.org/10.1177/2167696813515852>
- Reifman, A., Arnett, J. J., & Colwell, M. J. (2007). Emerging adulthood: Theory, assessment and application. *Journal of Youth Development, 2*(1), 37–48. <https://doi.org/10.5195/JYD.2007.359>
- Sagone, E., & Indiana, M. L. (2023). The roles of academic self-efficacy and intolerance of uncertainty on decisional procrastination in university students during the COVID-19 pandemic. *Education Sciences, 13*(5), 476. <https://doi.org/10.3390/educsci13050476>
- Salmela-Aro, K., Aunola, K., & Nurmi, J. E. (2007). Personal goals during emerging adulthood: A 10-year follow up. *Journal of Adolescent Research, 22*(6), 690–715. <https://doi.org/10.1177/0743558407303978>
- Salmela-Aro, K., Aunola, K., & Nurmi, J.-E. (2008). Trajectories of depressive symptoms during emerging adulthood. *European Journal of Developmental Psychology, 5*(4), 439–465. <https://doi.org/10.1080/17405620600867014>

- Shulman, S., & Nurmi, J.-E. (2010). Understanding emerging adulthood from a goal-setting perspective. *New Directions for Child and Adolescent Development*, 2010(130), 1–11. <https://doi.org/10.1002/cd.277>
- Turner, J. J., Wilmoth, J. D., & Phillips, T. M. (2014). What do you want to accomplish in the next 10 years? The goals of emerging adults. *Journal of Human Sciences and Extension*, 2(3), 87–96. <https://doi.org/10.54718/WKQM2991>
- Wood, D., Crapnell, T., Lau, L., Bennet, A., Lotstein, D., Ferris, M., & Kou, A. (2018). Emerging adulthood as a critical stage in the life course. In N. Halfon, C. B. Forrest, R. M. Lerner, & E. M. Faustman. (Eds.), *Handbook of life course health development* (pp. 123–143). Springer Nature. <https://doi.org/10.1007/978-3-319-47143-3>
- Wrosch, C., Scheier, M. F., Carver, C. S., & Schulz, R. (2003). The importance of goal disengagement in adaptive self-regulation: When giving up is beneficial. *Self and Identity*, 2(1), 1–20. <https://doi.org/10.1080/15298860309021>
- Yuliawati, L., & Ardyan, E. (2022). The role of life planning in finding purpose and living out one's career calling among Indonesian emerging adults. *Journal of Career Development*, 49(3), 538–550. <https://doi.org/10.1177/0894845320950834>