

The Effect of Intolerance Uncertainty on Sense of Control: the Moderating Role of Perceived Social Support

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Abstract:

In order to focus on mental health during emerging adulthood, the present study explored the moderating role of perceived social support in the effect of intolerance uncertainty on sense of control by administering a questionnaire to 207 individuals during emerging adulthood. The results indicate that intolerance uncertainty significantly predicted sense of control and that perceived social support moderated this effect. Specifically, intolerance uncertainty was a more significant predictor of sense of control at high levels of perceived social support than at low levels of perceived social support; at high levels of perceived social support, intolerance uncertainty was a negative predictor of the personal mastery subdimension, and vice versa; and perceived social support did not moderate the impact of intolerance uncertainty on the perceived constraints subdimension.

Keywords: Intolerance Uncertainty, Sense of Control, Perceived Social Support, Emerging Adulthood

1. Introduction

Sense of control is one of the power needs. It is defined as the individual's confident attitude about being able to control their own internal state and behavioral activities, believing that they have the capacity to alter the current environment, and confident in the consistency of assumptions and results[1]. As an important psychological resource, it aids individuals in resisting adverse stimuli from the outside world. Deprivation of this sense of control may lead to discomfort and a decline in positive emotions. Cross-cultural studies have revealed that Orientals tend to have a chronically low sense of control [2]. The concept of "emerging adulthood," proposed by

Arnett, suggests that the transition from adolescence to emerging adulthood necessitates a separate phase, primarily spanning the ages of 18 to 25. Individuals in this stage are characterized by exploratory instability, self-focus, diverse possibilities, and uncertainty in orientation [3,4].

1.1 Inability to tolerate the relationship between uncertainty and sense of control

Intolerance of uncertainty (IU) is a bias that arises at the cognitive level and affects an individual's emotion, cognition, and behavioral patterns when he or she encounters an uncertain situation or event[5]. IU also affects an individual's information processing,

judgement and decision-making, problem orientation, and coping strategies [6]. Research suggests that possible association between level of sense of control and level of IU. From the perspective of an individual's own competence, studied 16 psychotherapists through semi-structured interviews. Most of the therapists defined the sense of loss of control as a sense of helplessness and that it was related to uncertainty or unpredictable circumstances. Improper handling of unpredictable events can make individuals feel out of control, which may ultimately lead to the development of psychological disorders. In terms of an individual's perception of the environment, uncertainty explains 59% of the sense of control, whereas individuals with high IU have an attentional bias towards uncertain information in the environment, and they are more likely to perceive uncertainty and unpredictability in the environment, which felt out of control [7-9]. Furthermore, it has also been shown that IU is significantly related with sense of control [10] and that IU negatively predicts sense of control [11]. This leads to the proposal of H1: intolerance uncertainty positively predicts sense of control.

1.2 The moderating role of perceived social support

Social support means the contingency assistance offered by human resources such as family members, relatives, friends, neighbours, and co-workers to assist in stress management when a distressed person faces a stressful situation [12]. However, social support as a personal experience, cognitive factors play an important role, and equivalent social support conditions are affected by individual differences in recipients [13]. It is more relevant to use subjectively perceived social support to analyse the role and impact it has had compared to the actual support received, which is the variable that really influences human behaviour and development [14]. Therefore, this paper will take Perceived Social Support. Perceived social support was defined as a belief about an individual's expectation and assessments of being able to receive social support [15].

Based on the ideas presented in the Buffering Effect Model theory of social support, social support is a crucial factor in an people's perceived evaluation of a potentially stressful event, as well as reappraisal of the perceived stress [16]. intolerance uncertainty encompasses perceptions and feelings associated with uncertainty, such as being overwhelming, generating frustration and stress [6]. It suggests that intolerance uncertainty may increase an individual's perception of stress, which can be moderated by social support. In addition, social support can compensate to some extent for sense of control. According to com-

pensatory control theory, personal control and external control can compensate for the lack of individual's sense of control. Personal control includes increasing one's own ability, knowledge, skills, etc., while external control includes help and support from others [17]. This leads to H2: Perceptions social support moderates the effect of IU on the sense of control.

In summary, this paper will construct a moderating model to examine whether IU affects sense of control and whether perceptions social support can play a moderating role in it.

2. Methods

2.1 Participants

In this study, a questionnaire survey was commenced on 207 individuals in the early adult years of life in China, of whom 106 were male and 101 were female, with ages ranging from 18 to 25, with a mean age of 22.5 ± 1.86 years.

2.2 Research material

2.2.1 Intolerance Uncertainty Scale

Carleton et al. (2007) developed a simplified version of the Intolerance of Uncertainty Scale short form [18]. Wu L.J. et al. (2016) translated and revised it into Chinese, and the revised reliability and validity were good. The scale has 12 questions. The level of score indicates the level of IU in individuals [19]. In this research the reliability of the scale was 0.85.

2.2.2 Sense of Control Scale

The scale developed by Lachman and Weaver (1998) and translated and revised by Li Jing (2014) was used, with good reliability and validity after revision [20,21]. The scale has two dimensions. Personal mastery was defined as the degree of a person's self-efficacy or effectiveness in pursuing objectives. Perceived constraints was defined as the degree to which a person perceives obstacles or distractions in the pursuit of a goal that are beyond his or her control, and the dimension is a reverse scoring question. personal mastery focuses more on the level of competence that an individual possesses, whereas perceived constraints can be influenced by contingencies [20]. The scale has 12 questions. The level of score indicates the level of sense of control. In this research, the overall reliability of the scale was 0.89, the reliability of the personal mastery dimension was 0.82, and the reliability of the perceived constraints dimension was 0.90.

2.2.3 Perceived Social Support Scale

Jiang G.J. (1999) developed the Perceived Social Support Scale, which consists of 12 questions. The level of score indicates the level of perceived social support[22]. Several studies have shown good internal consistency of the scale. Since the target population of this study was individuals aged 18-25 years old at the beginning of adulthood, including workers and students, the words “leaders and colleagues” in the scale were changed to “teachers or leaders, classmates or colleagues”. In this research, the reliability of the scale was 0.95.

2.3 Data analysis

In this study, the online questionnaire will be distributed and recovered through Questionstar, which includes three scales and one lie detector question. After the data were recovered, and after excluding data with too short and too long answers and wrong answers to the polygraph ques-

tion, using SPSS 22.0 and the plug-in PROCESS V3.5.

3. Results

3.1 Common method bias test

Since this research used a self-administered scale for research and analysis, which may be subject to common methodological bias. Therefore, an anonymous survey and a polygraph question were used to control the research procedures; and the Harman one-way test was used for statistical tests. The number of factors with an eigenroot more than 1 is six in total, and the variance explained by the first factor is 39.14% of the variance, which did not reach the standard critical criterion of 40%, indicating that the common methodological bias of this study was not significant[23].

Table 1. Descriptive statistics and correlations among all variables.

| Variables | M | SD | 1 | 2 | 3 | 4 | 5 |
|----------------------------------------|------|------|----------|---------|---------|---------|---|
| Intolerance of Uncertainty | 2.71 | 0.81 | - | | | | |
| Perceived Social Support | 5.33 | 0.84 | -0.39*** | - | | | |
| Personal Mastery | 5.21 | 0.80 | -0.29*** | 0.55*** | - | | |
| Perceived Constraints(Reverse scoring) | 4.61 | 1.12 | -0.70*** | 0.61*** | 0.44*** | - | |
| Sense of Control | 4.81 | 1.19 | -0.66*** | 0.68*** | 0.69*** | 0.96*** | - |

***p < 0.001, **p < 0.01, *p < 0.05.

3.2 Descriptive statistics and correlation analysis between variables

The relevant analyses show that intolerance uncertainty is negatively correlated with perceived social support, sense of control and its sub-dimensions, and perceptions social support is positively correlated with sense of control and its sub-dimensions(see Table 1).

3.3 Analysis of moderating effects

After decentring the data, moderated effects analyses were conducted using model 1 of PROCESS in SPSS. The results indicated that the interaction term of IU and perceptions social support was a significant predictor of

sense of control ($\beta=-0.11$, $t=-2.45$, $p<0.05$), an extremely significant prediction of personal mastery ($\beta=-0.28$, $t=-4.9$, $p<0.001$), and an insignificant predictor of perceived constrains ($\beta=-0.02$, $t=-0.37$, $p>0.05$) (see Table 2). This indicates that perceptions social support moderates the effect of IU on the sense of control as well as the effect of IU on the personal mastery. Further simple slope analyses suggested that IU was a stronger predictor of sense of control in the presence of high collateral social support compared to low collateral social support (see Fig 1). IU was a negative predictor of personal mastery in the case of high perceptions social support, whereas it was a positive predictor of personal mastery in the case of low perceptions social support (see Fig. 2).

Table 2. Moderating effects test.

| Outcome Variables | Predictor variables | β | t |
|--------------------------------------------|-----------------------------------------------------|---------|-----------|
| Sense of Control | Intolerance of Uncertainty | -0.66 | -10.06*** |
| | Perceived Social Support | 0.48 | 10.94*** |
| | Intolerance of Uncertainty×Perceived Social Support | -0.11 | -2.45* |
| Personal Mastery | Intolerance of Uncertainty | -0.15 | -1.73 |
| | Perceived Social Support | 0.55 | 9.58*** |
| | Intolerance of Uncertainty×Perceived Social Support | -0.28 | -4.9*** |
| Perceived Constraints (Reverse scoring) | Intolerance of Uncertainty | -0.92 | -10.89*** |
| | Perceived Social Support | 0.45 | 7.93*** |
| | Intolerance of Uncertainty×Perceived Social Support | -0.02 | -0.37 |

***p < 0.001, **p < 0.01, *p < 0.05.

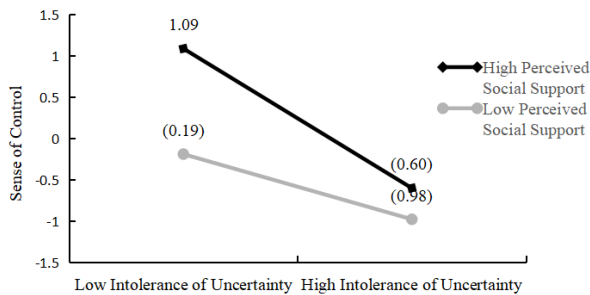


Figure 1. The moderating effect of Perceived Support on Intolerable Uncertainty and Sense of Control

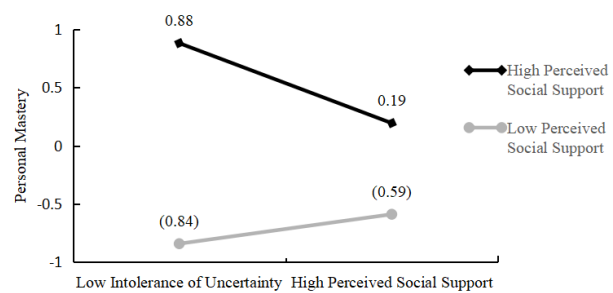


Figure 2. The moderating effect of Perceived Support on Intolerable Uncertainty and Personal Mastery

4. Discussion

4.1 The relationship between intolerance uncertainty and sense of control

The present study found that IU negatively predicted sense of control, validating H1[11]. On the one hand, the way of coping with uncertain information affects the perception of sense of control. If unpredictable events are perceived as uncontrollable, this can lead to psychological disorders.[7]. On the other hand, differences in IU levels affect individuals' different attentional biases towards uncertain information in the environment, which in turn affects the sense of control.

4.2 The moderating role of perceived social support

The moderating effects test revealed that perceived social support did not moderated equally on the two dimensions of perceptions of control, with perceived social support moderating the effects of IU on perceptions of control in

general as well as on perceptions of personal mastery, but not significantly moderating the impact of IU on perceived constrains, partially verifying H2. Compared to low perceived social support, IU was more strongly predictive of perceptions of control under high perceived social support. IU will influence self-judgments of problem-solving ability [24]. In ambiguous situations, IU can cause stress and anxiety, reduce an individual's cognitive resources, and affect an individual's confidence that he or she can successfully solve a problem. In contrast, perceived social support enables individuals to gain access to social resources, tend to adopt more positive coping styles [25], and thus gain a sense of control in their environment. However, unlike perceptions of control, there is a negative predictive effect of IU on personal mastery in the presence of high perceptions social support, whereas IU is a positive predictor of personal mastery in the presence of low perceptions social support [20].

4.3 Significance of the study

The moderating role model was constructed to investigate

the theoretical mechanisms of the sense of control during the emerging adulthood period, and the results illustrated that perceived social support can significantly modulate the effect of IU on the sense of control and the effect of IU on the personal mastery. Therefore, it is suggested that the society can give more support to individuals in the emerging adulthood period, which can reduce the decrease in the sense of control due to excessive attention to uncertainty and irrational cognition in this stage full of uncertainty.

5. Conclusion

In summary, this study concludes that IU significantly predicts perceptions of control, and that perceptions social support can play a moderating role, with IU being a more significant predictor of perceptions of control at high perceptions social support than at low perceptions social support. When the two sub-dimensions of perceptions of control, personal mastery and perceived constraints, were used as dependent variables, it was found that IU negatively predicted personal mastery in the presence of high perceptions of social support and positively predicted personal mastery in the presence of low perceptions of social support. The moderating effect of perceptions social support on perceived constraints of the effects of IU was not significant.

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