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# Perceived Maternal Invalidation and Drinking Behavior: The Role of Action Control

Elise Ann Warner

*University of Arkansas, Fayetteville*

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Perceived Maternal Invalidation and Drinking Behavior: The Role of Action Control

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Social Work

by

Elise Warner  
University of Arkansas  
Bachelor of Arts in Psychology, 2015

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University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

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Alishia Ferguson, PhD  
Thesis Director

---

John Gallagher, PhD  
Committee Member

---

Jennifer Veilleux, PhD  
Committee Member

## ABSTRACT

Alcohol use disorder is one of the most prevalent disorders worldwide. As such, researchers have examined factors contributing to alcohol use. Perception of emotional experiences in childhood as invalidating by parents is one factor that has been found to predict later alcohol use, though less is known about maternal invalidation specifically. Parental invalidation has also been found to predict difficulty regulating affective states (i.e., negative and positive affect), which is also a determinant of alcohol use. Further, researchers have studied temptation to drink and restraint from drinking as related to alcohol use to better understand drinking behavior. Though there appears to be a link, these variables have not been studied together. Thus, the current study aimed to fill this gap by examining the relationship between perceived maternal invalidation, the upregulation of positive affect and downregulation of negative affect, and temptation to drink as well as restraint from drinking. Participants were recruited via Amazon Mechanical Turk from a larger sample of US adults ( $n = 1128$ ) who completed self-report measures on emotional tendencies. Participants who reported drinking alcohol in the last year were invited back to participate in the current study ( $n = 427$ ,  $M_{\text{age}} = 34.08$  and 54.3% female). Bivariate correlations were conducted to determine the association between perception of maternal invalidation, upregulation of positive affect (AOD) and downregulation of negative affect (AOF), temptation, and restraint regarding drinking behavior. A parallel mediator regression analysis was used to determine if greater upregulation of positive affect and greater downregulation of negative affect mediated the relationship between greater perception of maternal invalidation and greater difficulty resisting temptation to drink and restraining from drinking by evaluating direct and indirect effects using 95% bias-corrected bootstrapped confidence intervals of 5000 samples. Results indicated moderate positive

correlations for upregulation of positive affect and downregulation of negative affect scores. Negative correlations were found between both upregulation of positive affect scores and downregulation of negative affect scores and restraint, temptation, and perception of maternal validation scores. Further, AOD partially mediated the relationship between perception of maternal invalidation and difficulty resisting the temptation to drink. Perception of greater maternal invalidation was also found to predict greater difficulty restraining from drinking. Clinical implications as well as study limitations are discussed.

## TABLE OF CONTENTS

|   |    |
|---|----|
| I. INTRODUCTION.....                                | 1  |
| A. PREVALENCE AND COST OF ALCOHOL USE DISORDER..... | 1  |
| B. ALCOHOL USE DISORDER AND SOCIAL WORK.....        | 3  |
| II. LITERATURE REVIEW.....                          | 5  |
| A. THE ROLE OF SELF-CONTROL.....                    | 5  |
| B. THE DUAL PROCESS MODEL OF SELF-CONTROL.....      | 5  |
| C. TEMPTATION AND RESTRAINT.....                    | 6  |
| D. PERCEIVED PARENTING STYLES.....                  | 7  |
| E. AFFECT, SELF-REGULATION, AND ALCOHOL USE.....    | 9  |
| F. HYPOTHESES.....                                  | 10 |
| III. THEORY.....                                    | 12 |
| A. THEORY OF ACTION CONTROL.....                    | 12 |
| B. MULTI-SYSTEMS LIFE COURSE PERSPECTIVE.....       | 13 |
| IV. METHOD.....                                     | 16 |
| A. PARTICIPANTS AND PROCEDURE.....                  | 16 |
| B. MEASURES.....                                    | 16 |
| C. DATA ANALYSIS PLAN .....                         | 19 |
| V. RESULTS.....                                     | 20 |
| A. BIVARIATE CORRELATIONS.....                      | 20 |
| B. MEDIATION.....                                   | 20 |
| VI. DISCUSSION.....                                 | 22 |
| A. LIMITATIONS.....                                 | 24 |

|                                  |    |
|----------------------------------|----|
| B. SOCIAL WORK IMPLICATIONS..... | 25 |
| C. CONCLUSIONS.....              | 27 |
| VII. TABLES AND FIGURES.....     | 28 |
| XI. REFERENCES.....              | 31 |

## **Chapter 1 – Introduction**

Alcohol use disorder is one of the most prevalent mental disorders worldwide (Kessler, Chiu, Demler, Merikangas, & Walters, 2005). This disorder is associated with impaired productivity and interpersonal functioning, often contributing to physical and psychiatric comorbidity. Alcohol use disorder is currently diagnosed based on criteria found in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013). Alcohol use disorder is diagnosed given the presence of at least two of eleven symptoms, with the severity dependent on number of symptoms (i.e., mild for presence of 2 to 3 symptoms, moderate for 4 to 5 symptoms, and severe for 6 or more symptoms) (American Psychiatric Association, 2013). Examples of these symptoms specifically include use of a substance in larger amounts and over longer periods of time than initially intended as well as desire for the substance despite efforts to limit or control the use of the substance (American Psychiatric Association, 2013). Alcohol use disorder contributes to a large number of deaths annually and is costly for both individuals and society as a whole, however there is currently a shortage in services and service providers to treat the disorder.

### **Prevalence and Cost of Alcohol Use Disorder**

According to the National Survey on Drug Use and Health (NSDUH), 15.1 million adults in the United States ages 18 and older had an alcohol use disorder in 2015, with approximately 6.7 percent of those diagnosed receiving treatment during that year (National Institute on Alcohol Abuse and Alcoholism, 2017). General research attributes low treatment rates to a shortage of substance abuse specialists as well as the social stigma attached to diagnosis. One study found that the national average of behavioral specialists is 32 for every 1,000 individuals with alcohol use disorders (Vestal, 2015). The shortage may be attributed to

lower salaries for those in the addiction field than those in comparable health care specialties. For instance, the average social worker working in the substance abuse field was found to make roughly \$38,600 a year, whereas other healthcare specialties have been found to pay an average of \$47,230 a year (Vestal, 2015). This may contribute to difficulty receiving services, as over two-thirds of primary care providers have reported an inability to connect patients with outpatient services due to a shortage of behavioral health providers (Cunningham, 2009). There is also social stigma attached to the diagnosis of an alcohol use disorder, specifically because individuals may not want to receive a “label,” and this has been found to influence decisions of whether or not to pursue assessment and treatment (Vestal, 2015).

Comorbidity as related to alcohol use refers to the co-occurrence of alcohol use disorder with one or more other illnesses or disorders. One large scale study of comorbidity between alcohol use disorder and psychiatric disorders was conducted by the National Epidemiological Survey on Alcohol and Related Conditions, with data collected on 43,093 adults (ages 18 and older) (Substance Abuse and Mental Health Services Administration [SAMHSA], (2015). The prevalence for major depressive disorder was 20.5% for those who currently had alcohol use disorder. In fact, those with alcohol use disorder were, overall, 3.7 times more likely to have major depressive disorder than non-alcohol dependent individuals. Further, for those who were seeking treatment for alcohol-related issues (i.e., dependence or abuse based on DSM-IV criteria), 40.7% also met criteria for at least one mood disorder (SAMSHA, 2015). Thus, individuals with alcohol use disorder also have high rates of psychiatric comorbidity.

Alcohol use disorder is also associated with physical comorbidities. Specifically, those with alcohol use disorder have been found to have greater physical issues, such as alcoholic liver and pancreatic diseases, renal diseases, cellulitis, and neurological and circulatory diseases,



among others (Schoepf & Heun, 2015). This is found at the national level, such that alcohol-related deaths are currently the third leading preventable cause of death in the United States, with an estimated 88,000 people dying from alcohol-related conditions annually (National Institute on Alcohol Abuse and Alcoholism, 2017).

Alcohol use is also costly on both an individual and societal level. In 2010, excessive drinking was found to cost the average person \$807 (Centers for Disease Control and Prevention, 2016). Alcohol misuse was also found to account for 10% of criminal justice costs, 11% of healthcare expenses, and 5% of motor vehicle crash costs. Additionally, alcohol misuse is also a societal economic burden, with research showing that alcohol misuse cost the United States 249 billion dollars in 2010 (Centers for Disease Control and Prevention, 2017). Overall, alcohol misuse costs individuals, as well as society, large amounts of money each year.

### **Alcohol Use Disorder and Social Work**

A large number of social workers are currently working in mental health and substance abuse fields. As of 2016, 123,900 of a total 682,100 social workers were reported to work in mental health and substance abuse jobs in the United States (Bureau of Labor Statistics, 2018). Social workers who work with those who have alcohol use disorder often use the person-in-the-environment perspective to guide assessment and intervention. This perspective allows for an exploration of culturally diverse manifestations of alcohol use disorders, including intergenerational impact, influence on violent behavior, differences and similarities between genders, and more (Social Work Policy Institute, 2010). Social workers advocate for a holistic treatment approach which involves “medication, abuse group-specific targeted intervention, consumer-driven supportive treatment, and inpatient and outpatient treatment for alcohol use disorders” (Social Work Policy Institute, 2010, p. 1).

Given the prevalence of alcohol use disorder in today's society and the prominence of social work in the fields of mental health and substance abuse, more research is needed to elucidate influential environmental factors and personal characteristics that influence alcohol abuse in order to guide treatment approaches, including prevention and intervention, within the field of social work. The purpose of this study is to examine temptation to drink and restraint from drinking and to explore factors that may contribute to drinking behavior. The individuals' perception of their parents as invalidating of emotional experiences in childhood and the influence this has on affect regulation (i.e., upregulation of positive affect and downregulation of negative affect) is also examined to learn how this contributes to temptation and restraint in drinking. Overall, the current study aims to measure the individuals' perception of their parents as invalidating of childhood emotional experiences as a predictor of difficulty with affect regulation and examines how this contributes to resisting temptation to drink and restraint from drinking.

## **Chapter 2 - Literature Review**

### **The Role of Self-Control**

Research into alcohol use has been aimed at studying the self-control processes that underlie temptation to drink and restraint from drinking to further understand how these processes contribute to drinking behavior. Temptation can be described as the conflict between self-control and impulse (Baumeister & Heatherton, 1996; Carver, 2005). An impulse is thought to arise when global motivation (e.g., thirst) meets activating environmental stimuli (e.g., a cold glass of water on a warm day) and typically prompts an inclination to perform a certain behavior to act on the present impulse (e.g., drink the glass of water). Impulses often possess an immediate, strong incentive value and are directed toward short-term gratification, with incentive values diminishing with the increase of temporal or spatial distance (Hoffman, Friese, & Strack, 2009). Though impulses may be biologically adaptive as is the case with a drink of water on a warm summer day, impulsivity, or hasty action taken without forethought or conscious judgment, interferes with long-term goal attainment (Hoffman, Friese, & Strack, 2009; Moeller et al., 2001). Self-control processes are meant to mitigate impulsive responses (Hoffman, et al., 2009). Resisting temptation, thus, may involve the exertion of self-control to attenuate impulses.

### **The Dual Process Model of Self Control**

Self-control is referred to the capacity to inhibit undesired behavioral tendencies (i.e., impulses) and resist acting on them (Taguey et al., 2004). General research has highlighted a dual process model that explicates the role of self-control in resisting temptation. The model posits that some behavior is thought to occur in an automatic manner with little active self-participation (Hoffman et al., 2009). This behavior is reflexive and impulsive and occurs after exposure to a stimulus (e.g., a visual cue such as seeing a cold glass of water) (Metcalf &

Mischel, 1999). Meanwhile, a second subset of behavior involves being able to override automatic behavior in order to implement alternate responses, and it is considered slow and strategic (Hoffman et al., 2009; Metcalfe & Mischel, 1999). Yielding to temptation by the automatic system tends to occur by default unless internal or external strategies are applied (Metcalfe & Mischel, 1999). Self-control often consists of a deliberate process that involves establishing control over these responses as opposed to allowing them to occur in a typical, automatic manner. Successful exertion of self-control delays immediate gratification that is prompted by automatic responses and allows the self to engage in goal-oriented behavior, such as restraining from engaging in a specific behavior (Bargh, Chen, & Burrows, 1996). This dual process model has been researched in relation to alcohol use. It has been shown that automatic processes in alcohol-dependent individuals generate an impulse to drink alcohol, which leads to drinking behavior, unless controlled processes are used to mitigate this response (Houben, Nederkoorn, Wiers, & Jansen, 2011).

### **Temptation and Restraint**

Impulsivity and self-control processes are evidently contributory factors in drinking behavior such as temptation to drink and restraint from drinking, two concepts that have been studied in alcohol use research. Temptation to drink is defined as a preoccupation to control alcohol use, while restraint from drinking includes the behaviors or rules that are designed to avoid or limit consumption of alcohol (Collins & Lapp, 1992). As previously mentioned, symptoms of alcohol use disorder specifically include use of a substance in larger amounts and over longer periods of time than initially intended as well as desire for the substance despite efforts to limit or control the use of the substance (American Psychiatric Association, 2013). Alcohol-dependent individuals may, thus, struggle with being drawn toward a substance

(temptation) and subsequently return to drinking but may also attempt to repel the substance by refraining from drinking (restraint) (Marlatt, 1985). Though research has shown temptation and restraint to be moderately positively correlated, in which greater difficulty with temptation is associated with greater difficulty restraining from drinking, (Collins & Lapp, 1992), research has pointed to a distinction between the two concepts. Temptation to drink has been found to be positively associated with typical weekly drinking and alcohol-related issues, while restraint from alcohol use was negatively correlated with typical weekly drinking only (Collins, Koutsky, & Izzo, 2000). Therefore, though temptation and restraint are highly associated, temptation to drink and restraint from drinking should be studied independently to better understand how they uniquely contribute to alcohol use.

## **Perceived Parenting Styles**

### **Perceived parenting styles and alcohol use.**

Parenting styles refer to the perceived parental attitudes toward children, which create an emotional climate in which parent behavior is expressed (Darling & Steinberg, 1993). One significant expression of parent behavior is invalidation of a child's emotional experiences (Linehan, 1993). Emotional invalidation refers to discrediting or ignoring a child's communication of emotions (Linehan, 1993). When a child's communication of emotions is invalidated, the child may come to lack an understanding of how to appropriately regulate emotions or tolerate emotional distress, in turn leading to personal invalidation of one's own emotional experiences.

Parental responses that are considered invalidating may include ignoring the child's thoughts, judgments, and/or emotions, overreacting to the child's thoughts, judgments, and emotions, and oversimplifying problems (Mountford et al., 2007). Ignoring a child's thoughts or

judgments might include not listening when the child talks about his or her future plans.

Similarly, ignoring emotions may include not listening to the child express that he or she is experiencing a negative mood state (e.g., anxiety). An example of overreacting a child's thoughts or judgments would be a parent expressing anger when the child disagreed with him or her.

Overreacting to an emotion, meanwhile, would be when a parent notices a child is upset and replies with a statement such as, "I'll give you something to really cry about!" Oversimplifying the problem would refer to a situation in which the child struggle to solve a problem and the parent replied with a statement such as, "Even an idiot could do that!" (Mountford et al., 2007).

One well-documented outcome of the perceptions of parenting styles is alcohol use. Research shows that a negative perception of parenting styles in the childhood environment is associated with alcohol use, and perception of adequate parenting styles has been found to operate as a protective factor against problematic drug use, including alcohol use (Baumrind, 1991; Choquet, Hassler, Morin, Falissard, & Chau, 2008). Research has considered the role that self-regulation may play in mediating the relationship between perceived parenting styles and alcohol use. Specifically, perception of parenting styles as permissive, similarly noted as a negative parenting style, was found to predict alcohol-related problems through greater difficulty with self-regulation (Patock-Peckham, Cheong, Balhorn, & Nagoshi, 2001). Meanwhile, positive perceptions of parenting styles were found to predict fewer symptoms of impulsivity. Though the literature is scarce, there may be reason to believe that perceived parenting styles influence level self-control, through increased impulsivity, as related to alcohol use. Overall, the perception of parenting styles may play a role in influencing temptation to drink and restraint from drinking alcohol, but less is known about the perception of parenting styles as *invalidating*, specifically related to the maternal familial role, and the role that this might play in alcohol use.

### **Perceived parenting styles, affect, and self-regulation.**

Beyond alcohol use, the perception of parenting styles within the childhood environment has been found to later influence psychological functioning and overall development (Denham et al., 2003; Tomarken & Keener, 1998). For instance, research suggests that perception of parenting style as positive acts as a buffer against negative mood states, such as depression and mood-lowering effects elicited by stressful life events (see Brand, Hatzinger, Beck, and Holsboer-Trachsler, 2009, for review). Parenting styles have also been linked with difficulty managing affect, with affect referring to the experience of feeling an emotion (Kivumbi, 2011). For example, negative parenting styles have been found to predict symptoms of depression, which involves the longer maintenance of negative affect and difficulty maintaining positive affect (Tomarken & Keener, 1998). Further, Mountford and colleagues (2007), found that emotional invalidation was associated with poor distress tolerance. Maternal parenting style has also been found to contribute to individual differences in emotion regulation, or the process involved in regulating emotional reactions to obtain goals (Denham et al., 2003), with emotion regulation including upregulation of positive affect and downregulation of negative affect (Livingstone & Srivastava, 2012). Thus, there is reason to believe that the perception of an individual of their parent's parenting style in childhood influences emotional regulation capabilities and regulation of affective states.

### **Affect, Self-Regulation, and Alcohol Use**

Various personal factors have been studied in conjunction with self-control to determine what characteristics contribute to increased difficulty in practicing self-control and subsequent goal attainment, such as engaging in drinking behavior. Existing research has found that

regulation of mood and emotional states may lead to the depletion of the inner resources necessary for self-control (Muraven & Baumeister, 2000). Specifically, emotion regulation may require inhibition and self-control to override a persistent mood (e.g, sadness), depleting the self-control resources required to restrain from behaviors such as drinking. This finding is supported in addiction research that studies the role of affect. Negative affect has been found to predict relapse in cigarette smoking and drinking, suggesting that it may undermine restraint (Schellekens, de Jong, Buitelaar, & Verkes, 2013; Zuo, Rabinovich, & Gilbert, 2017). Research also shows that negative affect is associated with higher levels of substance use, while positive affect is associated with lower levels of substance use (McHugh, Kaufman, Visser, & Weiss, 2013; Witkiewitz & Bowen, 2010). Extant literature seems to suggest that affect may play a significant role in alcohol use and may further serve as an important determinant of self-control processes, including restraint from alcohol use.

From this review, it is evident that difficulty with affect regulation itself has been found to contribute to alcohol use. As mentioned, perception of parenting styles as invalidating has also led to alcohol use and has been found to influence difficulty regulating affective states. Thus, there is reason to believe there is a link between perception of childhood emotional experiences as invalidating, difficulty regulating affect, and alcohol use. Extant research has failed to examine these constructs together, creating a gap in the literature. The purpose of the current study is to bridge this gap by examining these variables in conjunction.

### **Hypotheses**

I hypothesize the following:

- There will be a positive correlation between upregulation of positive affect and downregulation of negative affect.



- Downregulation of negative affect will be negatively correlated with restraint, temptation, and perception of maternal invalidation scores.
- There will be negative correlations between difficulty upregulating positive affect and restraint, temptation, and perception of maternal invalidation scores.
- Action control variables (i.e., upregulation of positive affect and downregulation of negative affect) will mediate the relationship between perceived maternal invalidation and temptation and restraint. Specifically, the perception of maternal invalidation in the childhood environment will predict greater difficulty upregulating positive affect and downregulating negative affect, and this will lead to difficulty controlling the temptation to drink and restraining from alcohol intake.

## Chapter 3 – Theory

### The Theory of Action Control

The theory of action control emphasizes the processes, such as regulation of emotions, cognitions, and behaviors, that ensure the enactment of an intention (e.g., plan) even when faced with competing action alternatives or debilitating thoughts and emotions (Kuhl, 1987). The theory posits that there are self-regulatory strategies that individuals use when an intention is challenged (e.g., controlling emotions). These strategies occur through one of two cognitive styles: action orientation and state orientation (Kuhl, 1987). Action-oriented individuals may be capable of enacting intentions without distraction of thoughts about events that occurred in the past or that could occur in the future. However, a state-oriented individual may be unable to escape a mode of control in which initiating an intended behavior is difficult due to difficulty performing self-regulatory behaviors. This typically occurs as a result of hesitation, thought to be induced by a monotonous activity, or preoccupation (e.g., rumination). Overall, action-oriented individuals tends to carry out more of their intentions and motives than state-oriented individuals (Kuhl, 1987).

Action orientation is thought to encompass two dimensions: failure-related action orientation (AOF) and decision-related action orientation (AOD) (Kuhl, 1994). Failure-related action orientation refers to the ability to downregulate negative affect after it has been aroused, which can be referred to as downregulation of negative affect. Whereas action-oriented individuals are able to reduce negative affect and to separate themselves from thoughts related to negative events, state-oriented individuals have difficulty controlling negative affect and intrusive thoughts (Kuhl, 1994). Meanwhile, decision-related orientation is the ability to self-generate positive affect when faced with challenges, which is referred to as upregulation of

positive affect. Action-oriented individuals can self-generate positive affect and carry out intended goal-directed activities, whereas state-oriented individuals hesitate when faced with challenging tasks and have difficulty enacting intentions, because they struggle to up-regulate positive affect that is needed (Kuhl, 1994).

The purpose of the current study is to examine the role of affect regulation in the relationship between perception of maternal invalidation and temptation and restraint from drinking. The theory of action control is the basis of the action control scale (Kuhl, 1994) that is used in this study as a measure of ability to upregulate positive affect and downregulate negative affect as related to goal pursuit. Thus, the theory of action control is used to study affect regulation within the relationship of perceived maternal invalidation and drinking behavior in the current study.

### **Multi-Systems Life Course Perspective**

The multi-systems life course perspective (MSLC) is a framework that is based on three theories and one perspective – ecological systems theory, symbolic interactionism theory, life course theory, and social change perspective – that are combined to offer a holistic lens for examining clients, communities, organizations, and society as a whole (Murphy-Erby, Christy-McMullin, Stauss, & Schriver, 2010). A MSLC perspective unites micro-, mezzo-, and macro-level social work practice, with specific consideration to the interdependence of well-being and social change (or enhancement of social functioning and social conditions) (Christy, 2017). MSLC perspective can also be used to strengthen social work services. Specifically, the MSLC perspective may be used to assess clients in practice, to consider micro-, mezzo-, and macro-level influences to gain a comprehensive understanding of various factors that may be contributing to a client's circumstance (Murphy-Erby et al., 2010).

The ecological systems theory maintains that human development occurs within the context of multiple, interconnected systems, such as biological systems, political systems, and social systems, which frequently interact (Bronfenbrenner, 1990; Christy, 2017). This theory is often used to assist clinicians in gaining insight into the complex interaction of different systems within the client's life as well as to note how social impacts may create barriers for the client (Christy, 2017). Symbolic interactionism theory requires consideration of the social construction of meanings that people hold toward objects, with meaning derived from interactions, in examining behaviors across micro, mezzo, and macro levels (Blumer, 1969). Symbolic interactionism may be used to assist a client in making better sense of his or her environment, utilizing symbols and meanings to further change.

The life course theory posits that past as well as current historical, social, and generational factors influences the current circumstances of an individual, client, or community (Murphy-Erby et al., 2010). A review of personal life course may be used to help the client examine events that have contributed to his or her current circumstances and how these events will shape future goals. Meanwhile, social change theory can be used to better understand the larger societal forces (e.g., policy and societal attitudes that maintain power and oppression) that create barriers for the client and adds emphasis on the need for social change, social justice, and social action to improve individual circumstances (Murphy-Erby et al., 2010).

The MSLC perspective allows for use of multiple theories to garner a more comprehensive understanding of drinking behavior and clinical applications of findings. The role that perceived maternal invalidation plays on drinking behavior allows for use of the ecological systems theory to consider systems (i.e., family systems) that contribute to drinking outcomes. The life course theory helps to shape the study's research question through consideration of past

events, such as emotional invalidation in childhood by the mother, and the influence that this has on future ability to resist temptation to drink and restraint from drinking. Thus, past events are considered in the current circumstances experienced by adults in the study. Symbolic interactionism shapes the meaning and interpretation of childhood emotional experiences as invalidating. Meanwhile, prevalence and prominence of alcohol use disorders in today's society engenders a need for social change, shaping the purpose of the current study.

## Chapter 4 - Method

### Participants and Procedure

Participants were recruited online via Amazon Mechanical Turk (mTurk), a website that pays “workers” small amounts of money to complete online tasks, including survey studies. Participants in this cross-sectional study included 1,128 individuals in the United States who completed a set of measures that examine individual differences in emotional tendencies (i.e., perception of parental emotional validation and action control). Participants who reported drinking alcohol in the last year were invited back to answer additional measures related to alcohol use. Of the 684 participants invited back, 427 actually completed the additional measures, which examined temptation and restraint (see Table 1). Participants in the final sample were 54.3% female and 80.1% White and were between the ages of 18 and 73 ( $M_{\text{age}} = 34.08$  years,  $SD = 11.17$ ). Within this sample, 30.9% scored an 8 or above on the Alcohol Use Disorders Identification Test, indicating hazardous alcohol use.

### Measures

**Action Control Scale (ACS; Kuhl, 1994).** The ACS is a 36-item scale that examines degree of action control for three subscales: failure-related action orientation (AOF; down regulation of negative affect), decision-related action orientation (AOD; e.g., upregulation of positive affect), and action orientation during successful activity performance (AOP). For the purpose of the current study, only failure-related action orientation and decision-related action orientation were used. Each item features one question with two alternative answers, one of which represents state-orientation and the other which represents action-orientation. For instance, an example of a failure-related action orientation question includes a statement such as, “When I am in a competition and have lost every time” and then feature an action-oriented answer (e.g.,

“I can soon put losing out of my mind”) as well as a state-oriented answer (e.g., “the thought that I lost keeps running through my mind”). Meanwhile, an example of a decision-related action orientation question includes a statement such as, “When I have to take care of something important but which is also unpleasant” and then an action-oriented answer (e.g., “I can do it and get it over with”) and a state-oriented answer, such as “It can take a while before I bring myself to do it.” Subscales are scored independently, with failure-related action orientation scores and decision-related action orientation scores each ranging from 0 to 12. High failure-related action orientation scores indicate greater ability to downregulate negative affect in stressful situations, while high decision-related action orientation scores indicate greater ability to upregulate positive affect in stressful contexts. The mean for the overall scores in the current sample was 5.86 ( $SD = 2.9$ ) for failure-related action orientation, and the overall mean score for decision-related action orientation was 6.93 ( $SD = 3.71$ ).

**Temptation and Restraint Inventory (TRI; Collins & Lapp, 1992).** The TRI is a 15-item scale that measures temptation to drink and attempt to restraint from alcohol consumption, captured by two higher order factors: Cognitive Emotional Preoccupation and Cognitive Behavioral Control. Cognitive Emotional Preoccupation captures temptation to drink and includes the following subscales: 1) governing, a measure of difficulty controlling alcohol consumption; 2) emotion, measure of negative emotions and their influence on drinking behavior; and 3) cognitive preoccupation, which examines how often a person thinks about drinking. Meanwhile, the Cognitive Behavioral Control measures attempt to restrain from alcohol intake and includes the following subscales: 1) restriction, a measure of attempts to cut down alcohol consumption, and 2) concern about drinking, measuring an individual’s plans or worries concerning controlling drinking habits. Items for both Cognitive Emotional

Preoccupation (temptation) and Cognitive Behavioral Control (restraint) factors are scored separately, with scores ranging from 1 to 9 for both Cognitive Emotional Preoccupation (temptation) and Cognitive Behavioral Control (restraint). High scores indicate greater perceived difficulty with temptation and restraint. The overall mean scores were low, with the mean score of Cognitive Behavioral Control at 2.37 ( $SD = 1.69$ ), and the mean score for Cognitive Emotional Preoccupation at 2.63 ( $SD = 1.73$ ). The scale was found to have excellent convergent and discriminant validity, as the measure was found to positively correlate with related measures of temptation and restraint (Collins, Koutsky, & Izzo, 2000) as well as adequate robust internal consistency (Cronbach's  $\alpha = .87$ ) (MacKillop et al., 2006). The measure has also been shown to have adequate internal reliability (Connors, Collins, Derman, & Koutsky, 1998).

**Invalidating Childhood Environment Scale (ICES; Mountford, Corstorphine, Tomlinson, & Waller, 2007).** The ICES is an 18-item measure assessing perception of level of validation from parents in the first 18 years of life. Fourteen items reflect parental behavior, while 4 items address broad perceptions of structure and style within the family. For each of the 14 items, participants are asked to rate both their mother and father, though only ratings of the mother were used within this study. Each of the first 14 items are on a Likert-type scale, ranging from 1 (*Never*) to 5 (*All of the time*). The last 4 items also use a Likert-type scale, ranging from 1 (*Not at all like my family*) to 5 (*Like my family all of the time*). There are no individual subscales, but 8 themes are pulled from the first 14 items: ignore thoughts and judgments, ignore emotions, negative thoughts and judgments, over-react to emotions, negative emotions, overestimate problem solving, over-react to thoughts and judgments, and oversimplify problems. The last four items represent different types of invalidating environments – typical, perfect, and chaotic or validating family type. Two mean scores are calculated for the first 14 items, both for the father



and the mother, with scores ranging from 14 to 70. Higher scores represent perception of greater parental invalidation. Additionally, one mean score is calculated from the last four items, with high scores representing greater levels of either the validating environment or of the other invalidating environments. The overall mean of the initial sample who completed this measure was 31.72 ( $SD = 12.37$ ). The scale was shown to have acceptable psychometric and clinical validity in a sample of eating-disordered women (Mountford et al., 2007). It was also found to have good internal consistency (maternal invalidation  $\alpha = .90$ ; paternal invalidation  $\alpha = .88$ ) (Robertson, Kimbrel, Rosemary, & Nelson-Gray, 2013).

### **Data Analysis Plan**

Descriptive statistics were obtained for all study variables. Bivariate correlations were conducted to test the relationship between downregulation of negative affect, upregulation of positive affect, perception of maternal invalidation, temptation, and restraint. Parallel mediation analyses were conducted using SPSS via Hayes' (2013) macro PROCESS. Downregulation of negative affect and upregulation of positive affect were entered as mediators, maternal validation was entered as the independent variable, and both temptation and restraint served as outcome variables. Temptation and restraint were modeled separately. Indirect and direct effects were evaluated using 95% bias-corrected bootstrapped confidence intervals of 5000 samples. Confidence intervals not including zero were considered statistically significant.

## Chapter 5 - Results

### Bivariate Correlations

Correlational analyses were used to examine the relationships between perception of maternal invalidation, downregulation of negative affect, upregulation of positive affect, temptation, and restraint (see Table 2). Results indicated moderate positive correlations between downregulation of negative affect and upregulation of positive affect scores, such that greater difficulty downregulating negative affect was associated with greater difficulty upregulating positive affect. Negative correlations were found between both downregulation of negative affect and upregulation of positive affect scores and restraint, temptation, and perception of maternal invalidation scores. Specifically, greater difficulty downregulating negative affect and greater difficulty upregulating positive affect was associated with greater difficulty restraining from drinking and resisting the temptation to drink as well as greater perception of maternal invalidation.

### Mediation

The overall model explained 7% of the variance in temptation to drink,  $R^2 = .07$ ,  $F(3, 411) = 10.20$ ,  $p < .001$ . As displayed in Figure 1, perceived maternal invalidation predicted downregulation of negative affect and upregulation of positive affect (see Figure 1 for all unstandardized regression coefficients and standard errors). Specifically, greater maternal invalidation predicted greater difficulty upregulating positive affect and greater difficulty downregulating negative affect in stressful situations for goal pursuit. Only upregulation of positive affect predicted temptation to drink. With both upregulation of positive affect and downregulation of negative affect variables in the model, the direct effect of perceived maternal invalidation on temptation to drink remained significant. Finally, there was an indirect effect of

perceived maternal invalidation on temptation to drink through upregulation of positive affect ( $B = .001$ ,  $SE = .002$ ,  $CI = .002, .001$ ). Overall, results revealed that perceived maternal invalidation exerted both an indirect effect and a direct effect on temptation to drink via upregulation of positive affect, indicating partial mediation (see Figure 1). Specifically, greater perception of maternal invalidation in childhood predicted greater difficulty upregulating positive affect for goal pursuit which, in turn, predicted greater difficulty resisting temptation to drink. Greater perception of maternal invalidation in childhood was found to directly predict greater difficulty restraining from drinking. The overall model explained 4% of the variance in drinking restraint  $R^2 = .04$ ,  $F(3, 411) = 6.36$ ,  $p < .001$ . Downregulation of negative affect and upregulation of positive affect were not found to predict restraint from drinking, thus, there was no mediation.

## Chapter 6 - Discussion

The aim of the current study was to examine the influence of action control variables in the relationship between perceived maternal invalidation and temptation and/or restraint in drinking behavior. Results showed that difficulty upregulating positive affect (AOD) partially mediated the relationship between perceived maternal invalidation and temptation to drink, confirming the initial hypothesis. Specifically, perceived maternal invalidation predicts greater difficulty upregulating positive affect needed for goal pursuit, which, in turn, predicts difficulty resisting temptation to drink. Additionally, greater perception of maternal invalidation was found to directly predict difficulty restraining from alcohol use.

These findings add to extant literature which posits that management of affect can be influential in predicting the ability to practice self-control, a deliberative process that has been found to assist with resisting temptation (Muraven & Baumeister, 2000). It further underscores the significance of perception of parenting style on affective states and drinking behavior, as evident in extant literature (Baumrind, 1991; Choquet, Hassler, Morin, Falissard, & Chau, 2008; Tomarken & Keener, 1998). This is consistent with research showing that emotional invalidation in childhood, including dismissal or discrediting of emotions, has been found to lead to deficits in learning to regulate one's own emotions. Because regulation of affect can deplete the resources required for self-control, these resources are not always available when faced with subsequent behavior that requires self-control, such as resisting temptation to drink (Muraven & Baumeister, 2000). Thus, individuals struggling to regulate affect, as a result of perceived maternal invalidation, may find it difficult to resist temptation to drink.

The study benefited from several strengths. Specifically, findings are relatively novel given that action control has received less attention in research on perceived parenting styles and

temptation and restraint regarding drinking behavior. Additionally, the current study contributes to existing literature, such that research on the role of perceived parental invalidation on affect and drinking behavior is scarce. Given that the upregulation of positive affect was found to partially mediate the relationship between perception of maternal invalidation and temptation to drink, additional variables should be examined to further understand what helps to explain this relationship. The study also benefited from the use of validated self-report measures. Measures on perceived maternal invalidation, action control, and temptation and restraint have all previously been validated and used in additional research studies.

The results of the current study failed to support the hypothesis that greater difficulty regulating affect (both positive and negative) predicted greater difficulty restraining from drinking. This is inconsistent with findings that suggest that difficulty regulating affective states predicts drinking behavior, such as relapse (Schellekens et al., 2015; Zuo et al., 2017). However, this supports the assertion that temptation and restraint should be studied separately, given their potential to influence drinking behavior differently. This difference is evident in research showing that temptation was found to positively associate with typical amounts of alcohol consumed, while restraint was negatively associated with typical amounts of alcohol consumed (Collins & Lapp, 1992). This difference could be attributed to use of cognitive and/or behavioral strategies that contribute to restraint behavior that might be used to override automatic impulses (Collins & Lapp, 1992; Muraven & Baumeister, 2000). Further research should be conducted to explicate the cognitive processes contributing to temptation and/or restraint and how they contribute to drinking behavior.

In considering prior research, it should also be noted that there has been much attention to the role that the mother plays in child development, with less attention focused on the role of the

father (Feldman & Greenbaum, 1998; Kogan & Carter, 1996; Schore, 2001). More attention placed on the role of the mother has contributed to criticism toward mothers regarding parenting choices. One poll showed that 56% of mothers feel that they receive too much blame and not enough credit for their children's behavior (University of Michigan C.S. Mott Children's Hospital, 2017). However, recent societal changes have led to a change in occupational statuses of women and men, with more women now in higher status occupations and more men staying at home to watch the children than in previous years (Livingston, 2014). From the lens of the social change perspective, societal shifts have contributed to a change in family makeup, requiring further research to guide treatment practices. Thus, given the previous focus of attention on mothers and the growing involvement of fathers within the home, more research should be conducted to elucidate the role of the father in child development and affect regulation.

### **Limitations**

Though the current study benefits from several strengths, there are some limitations worth mentioning. First, the majority of the sample identified as White (at 80.1%), making it difficult to generalize the results to minority populations. Given that parent-child relationships, specifically mother and child relationships, vary across cultures, future research is needed to explore emotional invalidation across cultures (van Ijzendoorn, & Sagi-Schwartz, 2008). The data was obtained online via Amazon Mechanical Turk (mTurk). Though mTurk has previously been deemed a reliable technique for large data collection (Buhrmester, Kwang, & Gosling, 2011), data collection from online sources still remain susceptible to insufficient or unreliable self-report. Additionally, the study relies on self-report measures to assess action control, perceived maternal invalidation, and temptation and restraint. Future research should include structured clinical interviewing to examine clinical significance of these constructs. Additional

studies may also attempt to control for temptation when studying restraint, and likewise, to control for the effects of extraneous variables.

Because these variables were studied using individual difference measures, the dynamic processes that underlie affect regulation are not considered. Experimental laboratory designs may allow for an understanding of causal conclusions that can contribute to improvement of treatment strategies. Further, ecological momentary assessment may be used to better capture affective states in real time, in participants' natural environments (Stiffman, Stone, & Hufford, 2008). This may give better insight into the dynamic role of affect and affective states and how this contributes to behavior in real time.

### **Social Work Implications**

Overall, the study of the role of action control in a sample of drinkers, as associated with perceived maternal invalidation, is relatively novel. These results have implications that can be examined through the lens of the multi-systems life course perspective. If perceived maternal invalidation predicts difficulty upregulating positive affect which then predicts difficulty resisting temptation to drink, then early intervention efforts targeting perception of maternal invalidation may be beneficial in reducing future difficulty resisting the temptation to drink. Specifically, targeting perceived maternal invalidation might enhance the ability to upregulate positive affect, then potentially reducing difficulty resisting the temptation to drink. This is also true concerning the results that show that greater perception of maternal invalidation predicts greater difficulty restricting alcohol use, and, thus, targeting maternal invalidation at a young age may help reduce difficulty restricting alcohol use.

The life course theory emphasizes the significance of generational influences on an individual's trajectory. Maternal invalidation in childhood may contribute to later issues with

temptation to drink and restraint from drinking. The life course theory may be used to suggest assessment of a client's perception of the emotional environment in childhood. It further influences intervention. For example, clients may seek services at any time point in their lives. If services are sought in childhood, attending to feelings of invalidation from the mother may be best for prevention purposes. However, if adults seek services for issues surrounding alcohol use, affect regulation strategies may be targeted in intervention as a means of treating difficulty with temptation to drink. This could be coupled with ecological systems theory, which outlines the importance of including an understanding of the child's family as an influential system in the child's life (Bronfenbrenner, 1989). This might be useful for intervention purposes, in which family therapy may be conducted to teach parents skills for providing more emotionally supportive environments. Teaching the child these skills early in their trajectory may help reduce further generational cycles of emotion invalidation.

The focus on perception of emotional experiences in childhood aligns with symbolic interactionism theory, such that clients may be encouraged to make meaning of their childhood emotional experiences (Blumer, 1969). Assessment may include measures or open-ended questions that gauge the meaning that the child places on these emotional experiences to target those that construe their emotional experiences as invalidated by the maternal figure. Social change theory may be applied to advocate for policy that encourages early intervention and prevention for those who identify as experiencing maternal invalidation. Advocacy efforts could focus on more funding for increased access to services for alcohol use disorders and increased research that helps identify factors that contribute to alcohol use. Further, community awareness of alcohol use disorder as a disease could help destigmatize this issue and bring awareness to a need for treatment.



## **Conclusions**

The results of the current study contribute to alcohol use research by considering the roles of perception of maternal invalidation and affect regulation in temptation to drink and restraint from drinking. Upregulation of positive affect was found to partially mediate the relationship between perception of maternal invalidation and temptation to drink. Specifically, perception of greater maternal invalidation predicted greater difficulty upregulating positive affect which in turn predicted greater preoccupation with temptation to drink, though future research is needed to examine additional variables that help to explain this relationship. Perception of greater maternal invalidation was also found to predict greater difficulty in restraint from drinking. This suggests that perception of maternal invalidation and affect regulation are contributory to drinking behavior and should be examined in future alcohol use research. Further research could help solidify a better understanding of the importance of these constructs in drinking behavior and could be used to develop more effective clinical interventions and treatment strategies.

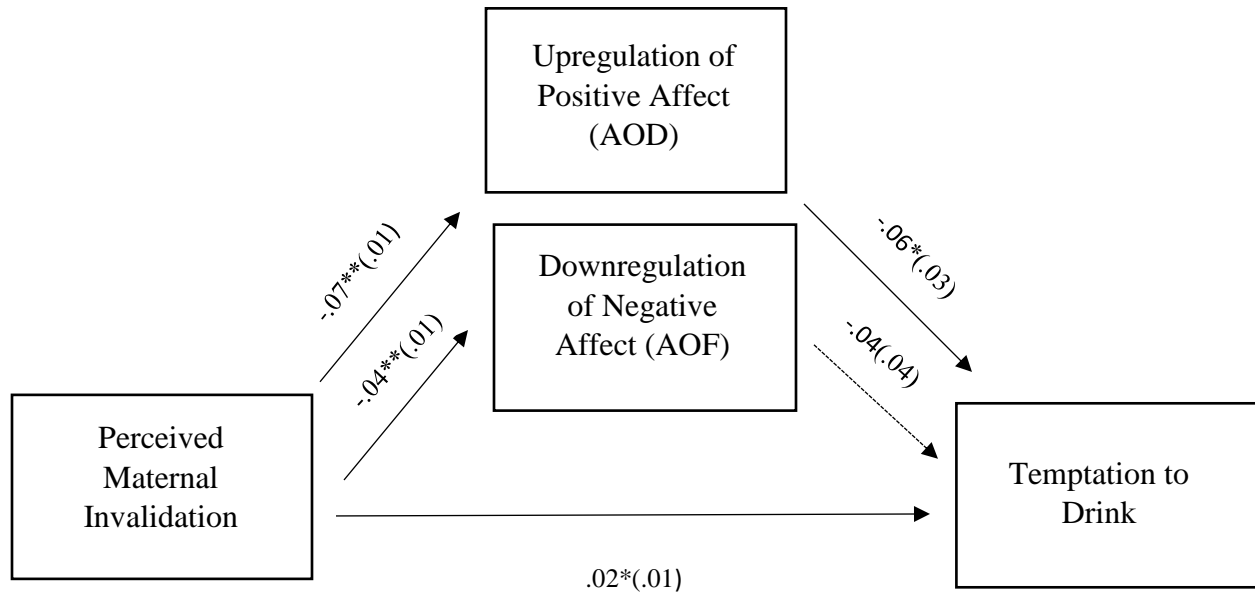
Table 1. Demographic Information

| Characteristic                      | Total (n = 427) | Total Percent |
|-------------------------------------|-----------------|---------------|
| <i>Sex</i>                          |                 |               |
| Female                              | 228             | 53.4%         |
| Male                                | 196             | 45.9%         |
| <i>Age</i>                          |                 |               |
| Median                              |                 |               |
| 18 to 28                            | 447             | 39.6%         |
| 29 to 38                            | 360             | 31.9%         |
| 39 to 48                            | 142             | 12.6%         |
| 49 to 58                            | 118             | 10.5%         |
| 59 to 68                            | 52              | 4.6%          |
| 69 and over                         | 8               | .7%           |
| <i>Ethnicity</i>                    |                 |               |
| White                               | 342             | 80.1%         |
| African American                    | 35              | 8.2%          |
| Hispanic                            | 23              | 5.4%          |
| Asian American                      | 16              | 3.8%          |
| Native American/Alaskan<br>American | 3               | .7%           |
| Middle Eastern                      | 1               | .2%           |
| Other                               | 6               | 1.4%          |
| <i>Hazardous Alcohol Use</i>        | 132             | 30.9%         |

Table 2. Bivariate Correlations

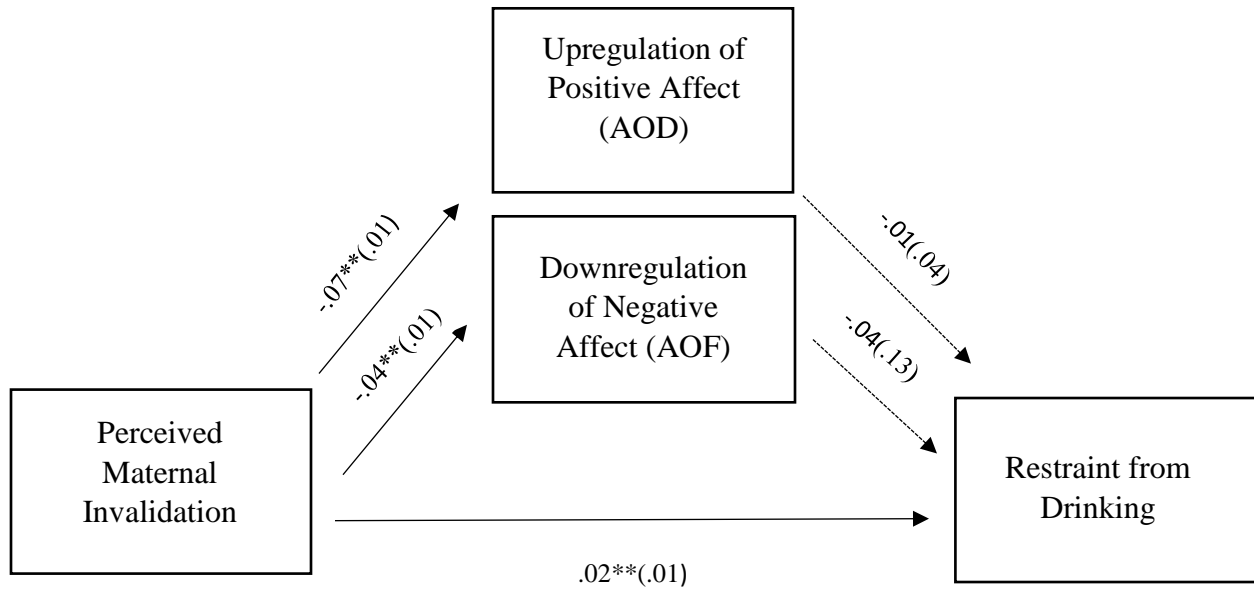
|                                      | 1      | 2      | 3     | 4     | 5 |
|--------------------------------------|--------|--------|-------|-------|---|
| 1. Downregulation of Negative Affect | 1      |        |       |       |   |
| 2. Upregulation of Positive Affect   | .62**  | 1      |       |       |   |
| 3. Restraint                         | -.10*  | -.15** | 1     |       |   |
| 4. Temptation                        | -.18** | -.21** | .81** | 1     |   |
| 5. Maternal Invalidation             | -.15** | -.19** | .18** | .20** | 1 |

\* $p < .05$ , \*\* $p < .01$



\* $p < .05$ , \*\* $p < .01$

Figure 1. Partial mediation analyses for upregulation of positive affect (AOD) as mediator between perceived maternal invalidation and temptation to drink and maternal invalidation as predictor of downregulation of negative affect (AOF).



\* $p < .05$ , \*\* $p < .01$

Figure 2. Perceived maternal validation as a predictor of downregulation of negative affect (AOF), upregulation of positive affect (AOD), and restraint from drinking.

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