THESIS

AUTHENTICITY AND COPING BEHAVIORS IN ADOLESCENTS

Submitted by

Amanda Nicole Dillard

Department of Human Development and Family Studies

In partial fulfillment of the requirements

For the Degree of Master of Science

Colorado State University

Fort Collins, Colorado

Summer 2016

Master's Committee:

　　Advisor: Rachel Lucas-Thompson Graham

　　Shelley Haddock
　　Jennifer Harmon

ABSTRACT

AUTHENTICITY AND COPING BEHAVIORS IN ADOLESCENTS

The goal of this thesis was to determine the extent to which adolescents' reported level of relational authenticity is associated with the use of adaptive or maladaptive coping behaviors. This study used secondary data analyses using data from a previous study (Wenzel & Lucas-Thompson, 2012), which collected questionnaire responses from 153 adolescent participants who completed a modified version of the Authenticity Inventory 3 (AI-3, Goldman & Kernis, 2006) and the Cognitive Emotion Regulation Questionnaire (CERQ, Garnefsky et al., 2001). A factor analysis revealed three categories of coping behaviors: a) adaptive/optimistic, b) adaptive/realistic, and c) maladaptive. These labels were selected because of past research about the effects of the coping behaviors in each factor.

Results revealed a negative association between authenticity and adaptive-optimistic coping behaviors and a positive association between authenticity and maladaptive behaviors. Post hoc analyses, which were completed in an attempt to further understand and explain the findings, revealed negative associations between symptoms of depression and anxiety and each authenticity and adaptive/optimistic coping behaviors, and positive associations between maladaptive coping behaviors and symptoms of depression and anxiety.

Conclusions: The results from this study emphasize need for further research of authenticity and the use and effectiveness of coping behaviors in adolescents. Results also highlight the difficulty of using 'adaptive' or 'maladaptive' as language to describe or categorize coping behaviors.

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LIST OF KEYWORDS

Authenticity, Adolescence, Coping, Coping behaviors, Mental health, Self-esteem

REVIEW OF THE LITERATURE

Introduction

Adolescent distress is an important issue that predicts mental health into adulthood (Bjorkenstam, Burstrom, Braanstrom, Vinnerljung, Bjorkenstam, & Pebley, 2015; Collishaw, Maughan, Goodman, & Pickles, 2004; Copeland & Hess, 1995; Grant, Compas, Thurm, McMahon, & Gipson, 2004). How an adolescent responds to distress is considered the process of coping, which can involve a variety of coping behaviors. The types of coping behaviors used by adolescents serve as strong predictors of self-esteem and overall psychological wellbeing both during adolescence and also into adulthood (Barendregt, Laan, Bongers, & van Nieuwenhuizen, 2015; Ben-Zur, 2009; Carver, Scheier, & Weintraub, 1989; Chua, Milfont, & Jose, 2015; Clark, 2006; Collishaw et al., 2004; Dumont & Provost, 1999; Latzer, Katz, & Berger, 2015; Thomsen, Fritz, Möβle, & Greve, 2015; Utsey, Ponterotto, Reynolds, & Cancelli, 2000; Woodhead, Cronkite, Moos, & Timko, 2014). Therefore, it is important to better understand coping behaviors. An understudied but theoretically important predictor of coping during adolescence is authenticity. Authenticity can be briefly defined as the internal and external expressions of one's truest self (Kernis & Goldman, 2006; Lazarus & Folkman, 1984).

In prior research, authenticity has been positively linked with predictors of mental health such as self-esteem, psychological wellbeing, and stress (e.g., Impett, Sorsoli, Schooler, Henson, & Tolman, 2008; Kernis & Goldman, 2006; Wenzel & Lucas-Thompson, 2012; Wood et al., 2008). Given that authentic behaviors and coping behaviors have both been related to wellbeing (Kernis & Goldman, 2006; Toor & Ofori, 2009; Wood et al., 2008), it may be beneficial to look specifically at the relationship between coping behaviors and authenticity. Perhaps such a

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relationship could help us to understand the link of both authenticity and coping behaviors with mental health. Kernis and Goldman (2006) stated a link between authenticity and coping behaviors, yet used unpublished work to do so; therefore, the strength and existence of such a link, particularly in adolescents, is still unknown. The goal of the current study was to test the extent to which authenticity is related to coping behaviors in adolescence.

Authenticity

Authenticity is a complex concept that can be defined and used in a number of ways. Kernis and Goldman (2006) use a multicomponent conceptualization for understanding 'authenticity'. These components are awareness, unbiased processing, behavior, and relational orientation. From this lens, awareness can be understood as the ability of an individual to understand and continue to advance his/her own motivations, desires, and feelings; unbiased processing of self-relevant information can be viewed as the ability of an individual to internally portray his/her positive and negatives traits, emotions and experiences without defensiveness, distortion, or exaggeration; behavior can be understood as the outward expression of an individual's true self involving values, preferences, and needs based on awareness and unbiased processing; and, relational orientation refers to the honesty in an individual's representation of his/herself in interactions with others, including the allowance of openness and truthfulness in both actions and intentions. Using this conceptualization of authenticity, we can start to understand that authenticity involves both the honest and true internal understanding of oneself and one's own emotions as well as the external representation and relational interaction of such true self.

Authenticity and Mental Health

From the view of the self-determination theory (SDT), competence, autonomy, and relatedness are the three needs that, if met, lead to greater psychological wellbeing (Deci & Ryan, 1985). Autonomy, from this viewpoint, leads to authenticity in that authentic behaviors are those in which an individual externally reflects his/her honest and true self (Kernis & Goldman, 2006). From this lens, we can begin to understand that inwardly and outwardly expressing ourselves in true and honest ways may be beneficial to our psychological wellbeing.

Researchers have found that adolescents place value on just being "yourself", yet adolescents often attempt to conform to the many pressures of self-expression, such as the gender stereotypes of society, which frequently leads to inauthentic behaviors (Brinkman, Rabenstein, Rosen, & Zimmerman, 2014). Using concepts akin to authenticity and SDT, such as false self-behavior (Harter, Waters, & Whitesell, 1997) and silencing the self (Jack & Dill, 1992), researchers have considered inward and outward expression of the self and how true such representation might be. False-self-behavior has been used to examine the ways that an adolescent might use different versions of him/herself when interacting with different audiences, none of which may be the true representation of his/herself (Harter et al., 1997). False-self behavior often develops when adolescents feel hopeless as a reaction to receiving a lack of support and/or receiving conditional support from peers and parents (Harter, Marold, Whiteshell, & Cobbs, 1996). Often adolescents who experience hope*ful*ness as a reaction to receiving unconditional support feel free to represent themselves honestly in "true self behavior" (Harter et al., 1996). Silencing the self, used to describe behaviors of withholding outward expression and behavior that is true to oneself with the purpose of avoiding conflict, has been linked with depressive symptoms (Jack & Dill, 1992). Using concepts related to authenticity, it is clear that

the stress and tension of projecting a false self-image may have negative implications on one's psychological wellbeing.

Presenting a false self may result in less rejection from parents or peers when the true self would not be acceptable; however, in general, research suggests that engaging in false self behavior is related to mental health problems. Researchers have found that authenticity is a strong predictor of psychological wellbeing (Kernis and Goldman, 2006; Toor & Ofori, 2009; Wood et al., 2008), self-esteem (Impett, Sorsoli, Schooler, Henson, & Tolman, 2008; Kernis & Goldman, 2006; Wenzel & Lucas-Thompson, 2012; Wood et al., 2008), and depressive symptoms (Kernis & Goldman, 2006; Harter et al., 1997; Jack & Dill, 1992; Wenzel & Lucas-Thompson, 2012; Wood et al., 2008), whereas it is negatively related to stress (Sheldon, Ryna, Tawsthorne, & Ilardi, 2008; Wood et al., 2008). Researchers also have found that higher authenticity in adults is related to increased life satisfaction and decreased distress (Boyraz & Kuhl, 2015; Boyraz, Waits, & Felix, 2014).

Authenticity has often been studied not only in direct relation to psychological wellbeing and self-esteem, but also as a mediator to help explain the relationships of other concepts to wellbeing. For example, authenticity acts as a mediator of the association between ruminating/self-reflective behaviors and psychological wellbeing (Boyraz & Kuhl, 2015), dispositional power and subjective wellbeing (Kifer, Heller, Perunovic, & Galinsky, 2013), and the meaning of work for managers of public organizations and wellbeing at work (Menard & Brunet, 2011). Although it is clear that authenticity is predictive of various dimensions of psychological wellbeing, it is still unclear why this robust association exists. In other words, it is as of yet unknown why authentic behaviors are so predictive of psychological wellbeing.

It is important to note that most of the research presented in this paper has been collected from individuals from individualistic cultures. Cultures that are more individualistic tend to place value in independence and self-esteem, whereas cultures that are more collectivistic tend to place more value in interdependence (Greenfield, Keller, Fuligni, & Maynard, 2003). This could result in stark differences between the cultures in terms of the meaning or consequences of (in)authenticity. Research shows that cultural views about the "self" have an effect on an individual's self-view (Wang, 2006). It is possible that one may engage in less authenticity with others in an attempt to foster the collectivism of one's own culture, perhaps similar to the concept of silencing the self (Jack & Dill, 1992), but for cultural values. It is important to keep this cultural difference in mind.

Coping and Mental Health

Coping is widely defined as the behavioral or emotional response to stress (e.g. Carver et al., 1989; Frydenberg, 2014; Lazarus & Folkman, 1984). Lazarus and Folkman (1984) use the cognitive theory of psychological stress and coping to propose a three-step process for stress and coping. Such process includes primary and secondary cognitive appraisal followed by coping, where primary appraisal involves an individual's perception of a stressor or threat; secondary appraisal involves the thought process for a response, including an individual thinking about possible ways to respond; and coping involves the actual implementation of the response. Using this process, Lazarus and Folkman (1987) developed the transaction theory of coping.

The transactional theory of coping (Lazarus & Folkman, 1987) views this concept as both cognitive (internal) and behavioral (external), while also allowing space for change based on time and situation by viewing coping as a process. This theory posits that coping cannot be fully understood without taking into account the person and the environment. Using this theory, which

places such importance on the idea that "coping influences the person's emotional state from the beginning of the encounter to its conclusion" (Lazarus & Folkman, 1987, p. 154), may help us to understand the importance of coping for psychological wellbeing. Coping, as the response to and process of dealing with stress, is crucial to understanding adolescent psychological wellbeing. Coping behaviors have often been linked to self-esteem and wellbeing (e.g. Barendregt et al., 2015; Chua et al., 2015; Latzer et al., 2015; Thomsen et al., 2015).

Carver et al. (1989) developed an inventory, titled the COPE, for measuring coping strategies. The COPE divides stress responses into 5 scales: problem-focused, emotion-focused, venting of emotions, behavioral disengagement, and mental disengagement (Caver et al., 1989). Using the COPE scales (Carver et al., 1989) and the conceptual framework of Moos and Holahan (2003), coping behaviors can be separated into two groups: adaptive and maladaptive, in which adaptive behaviors include such activities that may be perceived or proven to be effective for one's health (e.g., talking to others about the issue, making plans-of-action, taking one step at a time) and maladaptive behaviors include such activities that may be perceived or proven to be harmful to one's health (e.g., smoking, giving up on goals, drinking alcohol). However, there is an existing challenge with categorizing coping behaviors using the language of adaptive and maladaptive. Thus far, there is no definitive way of determining whether a coping behavior is truly 'adaptive' or 'maladaptive'. Specifically, behaviors can serve different purposes if used in the short term after a stressor versus over a long period of time in response to a stressor. For example, using Moos and Holahan's (2003) framework that talking to others about an issue is beneficial to one's health, such a behavior is adaptive; conversely, continued, persistent discussion of troubles with others – labeled co-rumination – is positively related to depressive symptoms (e.g., Stone, Hankin, Gibb, & Abela, 2011). However, given the use of this language

in past theoretical explanations of coping, I will continue to use such language when there is evidence that a coping behavior is predictive of positive or negative outcomes.

The research is clear that coping is linked to mental health in that increased adaptive strategies and decreased maladaptive strategies are predictive of wellbeing (e.g. Chua et al., 2015; Ben-Zur, 2009; Clark, 2006). Researchers have found that individuals who engaged in more positive and active coping behaviors, such as "trying to grow as a person from the experience" (p. 272) or "do[ing] what has to be done, one step at a time" (p. 272), have higher levels of self-esteem, whereas individuals who engaged in coping behaviors that included disengagement, such as "giv[ing] up trying to reach my goals" (p. 272) have lower self-esteem (Carver et al., 1989). Researchers have also found a negative correlation between avoidant coping strategies, such as trying to forget or ignoring the situation, with self-esteem (Dumont & Provost, 1999). Other researchers have found similar relationships with self-esteem when looking at other behaviors that can be considered coping, including negative correlational relationships between self-esteem and a) delinquent behaviors, which can be seen as an adolescent acting out in response to a stressor, with behaviors such as cutting school, tagging walls, getting into trouble with the law, or shoplifting (Dumont & Provost, 1999; Rosenberg & Rosenberg, 1978); and b) bullying, which can be an antisocial response to a stressor, with behaviors such as repeatedly teasing, threatening, name calling, or physically harming a peer (Dumont & Provost, 1999; O'Moore & Kirkham, 2001). Research has also found that resilience, in the lens of coping, which is defined as an adolescent having high stress but low feelings of depression, has a positive correlational relationship with self-esteem (Dumont & Provost, 1999). Similarly, research has revealed a relationship between adaptive coping strategies and greater self-esteem (Barendregt et al., 2015; Latzer et al., 2015; Utsey et al., 2000). In addition, fewer

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adaptive coping strategies may lead to greater suicidal ideation (Woodhead et al., 2014) and

adolescents who engage in self-harm have less productive coping behaviors than those who do

not engage in self-harm (Guerreiro, Figueira, Cruz, & Sampaio, 2014). Although adaptive coping

strategies have often been positively related to mental health, positive affect, and overall

wellbeing (e.g. Ben-Zur, 2009; Chua et al., 2015), researchers have found that a decrease in

maladaptive coping strategies is an even stronger predictor of it (Aldao & Nolen-Hoeksema,

2012; Clark, 2006).

Authenticity and Coping

Research clearly shows a relationship between greater authenticity and the following:

greater self-esteem (Impett et al., 2008; Kernis & Goldman, 2006; Wenzel & Lucas-Thompson,

2012; Wood et al., 2008), less stress/distress (Sheldon et al., 2008; Wood et al., 2008), better

psychological wellbeing (Kernis & Goldman, 2006; Toor & Ofori, 2009; Wood et al., 2008), and

decreased depressive symptoms (Kernis & Goldman, 2006; Harter et al., 1997; Jack & Dill,

1992; Wenzel & Lucas-Thompson, 2012; Wood et al., 2008). Using this information, it is

possible that authenticity is related to, and perhaps predictive of, greater overall wellbeing. What

is still missing is *why* and *how* this could be true. What is it about authentic feelings, beliefs, and

behaviors that leads to greater overall wellbeing?

Coping, using the transactional theory (Lazarus & Folkman, 1987), involves a process of

both internal and external experiences used by individuals to respond to a stressor or threat. From

this view, coping involves emotion, thought, and action. Research on coping has found links with

the very same outcomes that are linked with authenticity: self-esteem (Barendregt et al., 2015;

Carver et al., 1989; Dumont & Provost, 1999; Latzer et al., 2015; Utsey et al., 2000),

psychological wellbeing (Chua et al., 2015; Ben-Zur, 2009; Clark, 2006; Woodhead et al., 2014),

overall wellbeing (Barendregt et al., 2015; Chua et al., 2015; Latzer et al., 2015; Thomsen et al., 2015), and mental health (Chua et al., 2015; Ben-Zur, 2009; Clark, 2006). Such relationships make theoretical sense: when coping is tied so closely to one's emotion and thought, there is a logical relationship to overall wellbeing.

Given the relationships of authenticity and coping to self-esteem and wellbeing, it is likely that authenticity and coping behaviors are related. Using the multicomponent conceptualization of authenticity (Kernis & Goldman, 2006), we can start to examine how authenticity and coping behaviors may be related. The first component, awareness, asserts that an individual must be aware of one's own feelings; if such awareness, and therefore authenticity, is lacking in an adolescent, it is possible that the adolescent would be unable to engage in adaptive coping behaviors, which often require understanding of one's own feelings and needs. The second component, unbiased processing, emphasizes the importance of an individual to internally portray his/her traits, emotions and experiences without distortion; without such ability, it is conceivable that adaptively coping would be difficult given the inability to internally portray and understand one's emotions and needs. An individual with such a lack of awareness and unbiased processing may be more likely to engage in maladaptive patterns, such as catastrophizing ("I often think that what I have experienced is much worse than what others have experienced", Garnefski, Kraaij, & Spinhoven, 2001), which is a type of distortion and exaggeration of one's experiences. These individuals may also be less likely to engage in adaptive behaviors, such as positive reappraisal ("I think I can learn something from the situation", Garnefski et al., 2001) or refocusing on planning ("I think about how I can best cope with the situation", Garnefski et al., 2001) because of distortions in processing. The fourth component, relational orientation, asserts the importance of an individual to honestly represent

his/herself in interactions with others. Without this ability, it is possible that one would not be able to use the adaptive coping behaviors of reaching out to peers/family for support during times of stress because of the inability to authentically represent one's own needs and weaknesses to others.

This line of reasoning suggests that authenticity may predict more adaptive coping behaviors, which may then predict greater wellbeing. Such a pattern could be useful in attempting to better understand why and how authenticity is related to wellbeing. If a link between authenticity and coping behaviors is revealed, we may come closer to understanding the relationship between authenticity and overall wellbeing as well as coming closer to understanding coping behaviors in adolescents overall.

However, thus far, little is known about the relationship between authenticity and coping. Kernis and Goldman (2006) briefly stated that a relationship exists between the two constructs, but provided little detail that lacked specific sample information, measures used, and exact findings; further examination of the citation revealed that the data were unpublished. The current study attempts to bridge the gap left behind by Kernis and Goldman (2006) and explore the potentially important association between authenticity and coping behaviors. The research question guiding the current study is whether there is a relationship between level of authenticity and coping behaviors (adaptive or maladaptive) in adolescence. Given that higher authenticity has often been related to higher self-esteem (Impett et al., 2008; Kernis & Goldman, 2006; Wenzel & Lucas-Thompson, 2012; Wood et al., 2008) and psychological wellbeing (Impett et al., 2008; Kernis & Goldman, 2006; Wenzel & Lucas-Thompson, 2012; Wood et al., 2008), and that higher self-esteem and psychological wellbeing have often been related to more adaptive coping behaviors (Barendregt et al., 2015; Ben-Zur, 2009; Carver et al., 1989; Chua et al., 2015;

Clark, 2006; Dumont & Provost, 1999; Latzer et al., 2015; Utsey et al., 2000; Woodhead et al., 2014), it is hypothesized that greater authenticity is related to more adaptive coping behaviors and fewer maladaptive coping behaviors.

METHOD

Participants

Adolescents, aged 10- to 17-years-old, and their parents, were recruited for the current study. Participants consisted of 153 adolescents, 10 to 17 years of age ($M = 12.92$, $SD = 2.16$), from 98 different families. Only families with parents who had been married or cohabitating for at least two years ($M = 15.64$, $SD = 5.86$) were accepted into the study. Participants were recruited through local newspaper advertisements, local parenting magazine advertisements, and church bulletins. Most of the sample (78%) consisted of parents who had been married or cohabitating for the participant's entire life.

The sample consisted of nearly equal numbers of female and male participants (52% female). Racial/ethnic background was relatively diverse. Adolescents reported their ethnicity as: 49% non-Hispanic Caucasian, 26% mixed or other ethnicities, 17% African American, 6% Asian American, 1% American Indian, and 1% Hispanic (6% did not report their ethnicity). Yearly family income ranged from $3375 to $450000 ($M = \$67750$, $SD = \$63879.39$). In terms of parental education, more than half of parents had completed an Associate's degree or higher (71% of mothers and 67% of fathers).

Procedure

The data used for this study were taken from a larger research project, which studied the effects of parental marital conflict on adolescents. Only the aspects of the study relevant to the current proposal will be discussed here. All research visits required the child and both parents to attend. After participants gave informed consent, the parents and the adolescent were taken to separate rooms for the entirety of the visit. As part of the larger study, adolescents filled out

several questionnaires completed on a computer using Audio Computer Assisted Self Interview (ACASI) software that allowed the participants the option for questions and answers to be read aloud. This software ensured confidentiality of the information collected as well as allowed all participants to complete the questionnaires, despite each person's individual reading level.

Measures

Authenticity. A modified version (Wenzel & Lucas-Thompson, 2012) of the Authenticity Inventory 3 (AI-3; Goldman & Kernis, 2006) was used to measure each participant's dispositional authenticity. The version used for this study included only 12 total questions, while the original contained 45 questions. A pilot study gave evidence to suggest that the 12 items chosen are representative of the 45 original items from the AI-3 (Wenzel & Lucas-Thompson, 2012). Each adolescent participant completed an AI-3 to measure his/her self-reported authentic behaviors. The AI-3 used measure authenticity by asking questions such as, "for better or for worse I am aware of who I truly am" and "if asked, people I am close to can accurately describe what kind of person I am". Each of the 12 items on each version of the AI-3 completed in the study were rated by participants on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores representing higher authenticity (Cronbach's α = .66). This measure has demonstrated reliability and validity (Kernis & Goldman, 2006; Wenzel & Lucas-Thompson, 2012).

Coping. The Cognitive Emotion Regulation Questionnaire (CERQ; Garnefsky et al., 2001) was used to measure cognitive coping strategies for adolescent participants ages 12 and older, while children ages 10- and 11-years-old were given the children's version (CERQ-k; Garnefski, Rieffe, Jellesman, Terwogt, & Kraaij, 2007). These measures have demonstrated reliability and validity (Garnefski & Kraaij, 2006; Garnefski, Legerstee, Kraaij, Van den

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Kommer, & Teerds, 2002). Questions for the both versions of the CERQ asked adolescent participants to use a rating scale from "(almost) never" to "(almost) always" for nine subscales, answering the questions based on "what you generally think when you experience negative or unpleasant events". Each subscale represents a dimension of coping strategies, which are the following: refocus on planning ("I think about how to change the situation"), rumination ("I often think about how I feel about what I have experienced"), putting into perspective ("I think that other people go through much worse experiences"), catastrophizing ("I continually think how horrible the situation has been"), positive refocusing ("I think of something nice instead of what has happened"), positive reappraisal ("I look for positive sides to the matter"), acceptance ("I think that I must learn to live with it"), self-blame ("I feel that I am the one to blame for it"), and other blame ("I feel that others are responsible for what has happened").

Demographics. Demographic characteristics controlled for include age, gender, family income and ethnicity (White vs. non-white). Adolescent participants reported age, gender, and ethnicity. Parent participants reported family income.

Data Analysis

First, the mean scores for each coping subscale (refocus on planning, rumination, putting into perspective, catastrophizing, positive refocusing, positive reappraisal, acceptance, self-blame, and other blame) were calculated for both younger and older adolescents. Second, I conducted a factor analysis to examine the number of dimensions or factors that best characterize coping. This allowed me to form appropriate representative groups of coping behaviors.

Then, correlations were used to examine bivariate associations among the key variables and demographic characteristics. To test the primary study hypothesis, I used Generalized Estimating Equations (GEEs), which are a regression-based analysis. Because siblings were

involved as participants, it was necessary to adjust for the dependence in the observations. GEE

models are like ordinary least squares regression, but adjusts the standard errors based on

clustering within families (Ballinger, 2004; Zeger & Liang, 1986), and therefore are appropriate

to use when adolescents are clustered within families. In these analyses, the independent variable

was adolescent-reported authenticity; separate analyses were conducted separately for multiple

dependent variables, which were each of the dimensions of the coping behaviors suggested by

the factor analysis. Analyses also controlled for demographic variables including age, gender,

socioeconomic status (SES), and ethnicity.

Factor Analysis of Coping Behaviors

An exploratory factor analysis of the various coping strategies suggested a three factor solution: 1) adaptive/optimistic coping behaviors; 2) adaptive/realistic coping behaviors; and 3) maladaptive coping behaviors. The coping behaviors that loaded most heavily on the *adaptive/optimistic* factor were positive reappraisal (.85), refocusing (.81), and planning (.80); this factor accounted for 28% of variance. This factor was labeled adaptive/optimistic because the coping behaviors in this factor have been considered as adaptive (in terms of promoting future mental health) in previous studies, and reflect focusing on the positive aspects of potentially negative events. The coping behaviors that loaded most heavily on the *adaptive/realistic* factor were acceptance (.81), self-blame (.64), and putting into perspective (.63); this factor accounted for 19% of variance. This factor was labeled adaptive/realistic due to the more negative behaviors, such as self-blame, and the heavy loading of acceptance. The coping behaviors that loaded most heavily on the *maladaptive* factor were other blame (.81), catastrophizing (.80), and rumination (.39); this factor accounted for 18% of variance. This factor was labeled maladaptive because all of the behaviors in this factor have been considered less adaptive (in terms of promoting future mental health) in previous studies.

Associations between Authenticity and Coping

Examination of the bivariate correlations indicated that participants who reported more authenticity reported using significantly fewer adaptive/optimistic coping behaviors ($r = -.383$, $p < .001$) but significantly more maladaptive coping behaviors ($r = .363$, $p < .001$). Authenticity

was not significantly correlated with the use of adaptive/realistic coping behaviors ($r = -.046$, $p = .635$).

Next, results of the multivariate analyses indicated that these findings persisted controlling for age, income, gender, and ethnicity: higher authenticity was significantly and positively associated with maladaptive coping behaviors, whereas it was significantly negatively associated with adaptive/optimistic coping behaviors (see Table 1).

Because these results were the opposite of my hypothesis, post hoc analyses were conducted to help me better understand the nature of these findings. More specifically, bivariate correlations were conducted to examine associations between authenticity, coping behaviors, and both depressive symptoms and anxiety. Adolescents completed the Center for Epidemiological Studies Depression (CES-D) scale (Radloff, 1977) and the Revised Children's Manifest Anxiety Scale (Reynolds & Raymond, 1978), both widely used, reliable, and valid measures of depressive and anxiety symptoms, respectively. These correlations are presented in Table 2. Authenticity was significantly and negatively correlated with both depressive symptoms and anxiety. In addition, there were significant and positive correlations of depressive symptoms and anxiety with adaptive/optimistic coping behaviors, but significant and negative correlations between depressive symptoms/anxiety and maladaptive coping behaviors.

Additional post hoc analyses were conducted to examine the relationship between authenticity and each of the individual coping behaviors in attempt to further explain the unexpected findings with the factors representing categories of coping behaviors. Focusing on the individual behaviors in the adaptive/optimistic coping factor, there were significant, negative associations of authenticity with positive reappraisal ($r = -.434$, $p < .001$), planning ($r = -.293$, $p = .002$), and positive refocusing ($r = -.292$, $p = .002$). Focusing on the individual behaviors in the

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adaptive/realistic coping factor, findings were inconsistent, given the significantly positive association of authenticity with self-blame ($r = .240$, $p = .011$), the positively negative association of authenticity with putting into perspective ($r = -.273$, $p = .004$), and the insignificant association of authenticity with acceptance ($r = -.021$, $p = .827$). Focusing on the individual behaviors in the maladaptive coping factor, there was a significantly positive association of authenticity with catastrophizing ($r = .383$, $p < .001$), and not statistically significant associations of authenticity with rumination ($r = .050$, $p = .600$) or other blame ($r = .183$, $p = .054$). While not statistically significant, it should be noted that the last relationship (between authenticity and other blame) is trending.

DISCUSSION

The goal of this study was to investigate the nature of the association between authenticity and coping behaviors. The hypothesis that greater authenticity is related to more adaptive coping behaviors and fewer maladaptive coping behaviors was not supported. Instead, the results indicated that adolescents who reported coping with stressful situations by using behaviors that have been previously shown to be more adaptive and healthy, such as positive appraisal and refocusing, reported lower authenticity. In contrast, adolescents who reported coping using behaviors that have been previously shown to be more maladaptive and unhealthy, such as rumination and catastrophizing, reported higher authenticity. Surprisingly, further analyses revealed similar findings regarding depressive symptoms and anxiety: individuals who reported more maladaptive and less adaptive coping behavior reported fewer symptoms of depression and anxiety.

It was unexpected to find that behaviors previously deemed to be adaptive (Garnefski et al., 2001) were related to less authenticity and poorer mental health, whereas behaviors previously deemed to be maladaptive (Garnefski et al., 2001) were related to more authenticity and better mental health. It is important to keep in mind that these are correlational relationships and not causal ones. Being that this was not a longitudinal study, it possible that maladaptive-type coping behaviors used in the short term may at times serve a more immediate adaptive purpose, whereas similarly adaptive coping behaviors may at times serve a more immediate maladaptive purpose. As mentioned previously, this is one of the challenges of used the language of 'adaptive' and 'maladaptive'.

Post hoc analyses to examine the association between each coping behavior and authenticity attempted to adjust for the challenge of the language and categorization of these behaviors. The results from these analyses revealed that all three behaviors otherwise categorized as adaptive/optimistic (positive reappraisal, refocusing, and planning) each had a significantly negative relationship with authenticity, further supporting the current study's previous findings. The results from these post hoc analyses also revealed that the three coping behaviors otherwise categorized as adaptive/realistic were contradictory in their relationships with authenticity, being that self-blame was significantly positively related to it, putting into perspective was significantly negatively related to it, and acceptance was not significantly related to authenticity at all. This contradictory pattern provides some insight as to why this category did not reveal significant results in other analyses conducted in the current study. These post hoc analyses also revealed that of the three individual coping behaviors otherwise categorized as maladaptive, only catastrophizing had a significant – and positive – relationship with authenticity. As noted previously, it is important to point out that another of these behaviors, other blame, was trending toward significance; however, it still was not statistically significant. These post hoc analyses supported and provided some possible explanations for previous findings in the current study (additional details in the following sections).

Another challenge from the findings included the range of both mental health problems and coping behaviors that were revealed from this sample. Although the sample included diversity among participants in terms of socioeconomic status and ethnicity, the most serious forms of maladaptive coping behaviors, such as catastrophizing and rumination, as well as mental health problems may have been underrepresented in this sample of participants. Associations between such behaviors and authenticity may look different in a higher-risk sample.

Using speculation in attempt to better comprehend the current findings, a number of explanations may be present. The behaviors categorized as adaptive/optimistic were positive refocusing (e.g., "I think of pleasant things that have nothing to do with it"), positive reappraisal (e.g., "I think that the situation also has its positive sides"), and refocusing on planning (e.g., "I think about how to change the situation"). Although these have been deemed adaptive in past research (Garnefski et al., 2001), in adolescence these may be manifested as more avoidant techniques than positive ones. It is possible that in this way, there exists an optimistic *bias* in the adaptive/optimistic category, which could explain the negative relationship between this factor and authenticity and mental health (i.e., adolescents who are authentic may be displaying less of an optimistic bias). Past research has revealed a negative relationship between self-esteem and avoidant-type coping behaviors (Dumont & Provost, 1999); these findings with authenticity and coping may be following a similar pattern.

As previously noted, past findings have revealed that although adaptive behaviors are positively associated with wellbeing, the association is not as strong as the negative association between maladaptive behaviors and wellbeing (Aldao & Nolen-Hoeksema, 2012; Clark, 2006). In terms of the positive association between authenticity and maladaptive coping, it is possible that adolescents who exhibit more authenticity are able to have stronger or more meaningful relationships with others, which may be providing such adolescents the safe space to co-ruminate about stressful events in an attempt to process. Therefore, although rumination (Nolen-Hoeksema, 2000; Nolen-Hoeksema, Parker, & Larson, 1994; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008) and catastrophizing (Legerstee, Garnefski, Verhulst, & Utens, 2011; Noel, Francis, Williams-Outerbridge, & Fung, 2012) have been deemed maladaptive in past research, in the current study these behaviors may reflect a more-positive process. Similarly, it may be

developmentally normative for adolescents to use other blame as a reaction to a stressor as opposed to self-blame. From this lens, it is possible that self-blame is indicative of having more understanding of one's behavior and its consequences, which might help to explain why self-blame was significantly positively associated with authenticity.

Perhaps these findings are affirming that the language of adaptive and maladaptive is inappropriate for describing coping strategies, being that what was categorized as maladaptive was not so in this cross-sectional association between coping and mental health (authenticity, depressive symptoms, and anxiety). Using the findings as they are, it can be concluded that the maladaptive strategies, specifically catastrophizing, appeared from the data to be adaptive, at least in the immediate and non-longitudinal study and in terms of authenticity, depressive symptoms, and anxiety.

Furthermore, it is important to consider that the effectiveness of each individual coping behavior in this study is still unknown. The current study also did not assess how many of these different behaviors each participant reported using. For example, perhaps one adolescent reported only using rumination, while another reported using four different behaviors. This raises a question of whether it could be more, or perhaps less, beneficial to use to multiple coping strategies instead of just one. It is possible that when an adolescent does not feel that their coping behavior works, s/he adds another, and so on. Future research should investigate the effectiveness of coping behaviors and the number of coping strategies an individual uses to better understand links between authenticity, coping, and mental health.

Limitations and Future Directions

There are many challenges presented from the current study and findings. As previously noted, limitations include a the failure to consider the effectiveness of these coping behaviors,

the cross-sectional nature of the current study, and the potential that results would be different if the sample had been more representative of high-risk populations. In addition, like all of the past research on authenticity, the current study focused on individuals living in an individualistic country and therefore I was unable to further explore potential differences in individuals from a more collectivistic country. It is important for future research to better understand the role of effectiveness of these coping strategies in adolescent stress and mental health. It would also be important for a longitudinal study of coping behaviors on mental health to be conducted, in order to understand both the short-term effectiveness and outcomes of each coping behavior, as well as the changes overtime and eventually the long-term effectiveness and outcomes of each behavior. It would also be important to further investigate the use of adaptive/maladaptive language in research involving coping behaviors in adolescence.

CONCLUSIONS

The purpose of this study was to better understand the relationship between authenticity and coping behaviors. In contrast to the hypothesis, authenticity was related more maladaptive and less adaptive coping behaviors. These results highlight the difficulty of labeling individual behaviors as 'adaptive' or 'maladaptive'. The findings from the current study also contribute to the developing field of knowledge involving authenticity. There is still so much that is unknown about authentic behaviors and how/why it is associated with mental health. There is also still much to learn about coping behaviors in adolescence, particularly in relation to short-term versus long-term outcomes based on specific behaviors.

Table 1

Examining Reported Authenticity and Reported Coping Behaviors

	Adaptive Optimistic		Adaptive Realistic		Maladaptive	
	b	*SE*	*b*	*SE*	*b*	*SE*
Adolescent authenticity	-.88***	.21	-.16	.22	.76***	.21
Age	.06	.04	-.15***	.04	.05	.04
Family Income	-5.93	1.35	-4.30	1.40	2.36	1.38
Gender[1]	.04	.17	-.10	.18	.15	.17
White[2]	-.08	.17	.37	.18	.14	.18

* $p < .05$ ** $p < .01$ *** $p < .001$; [1] 1 = male, 2 = female; [2] 0 = non-White, 1 = White

Table 2

Examining the Correlation between Coping Behaviors with Depressive Symptoms

	1.	2.	3.	4.	5.
1. Authenticity	X				
2. Depressive symptoms	-.59***	X			
3. Anxiety	-.55***	.24**	X		
4. Adaptive/ Optimistic	-.38***	.44***	.34***	X	
5. Adaptive/ Realistic	-.05	-.10	-.21*	-0.01	X
6. Maladaptive	.34***	-.27**	-.41***	-0.01	0.01

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

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