



Narrative development among emerging adults who aged out of foster care: Patterns and implications for adaptation

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ABSTRACT

Narratives about life experiences, especially those focused on difficult or traumatic events, influence how we relate and adapt to the past, present, and future. This longitudinal study drew on four waves of narrative data provided by 172 emerging adults who aged out of the foster care system collected at 1.5, 2.5, 5, and 5 years following their exit from the foster care system. Growth curve analyses identified trajectories of three narrative process features (i.e., reflective functioning, integration, and complexity) and two narrative content features (i.e., negative and positive affect) as predicted by young adults' maltreatment and child welfare experiences, and as related to their current and future multi-domain adjustment. Both narrative process and content features decreased across the first 5 years following aging out without significant interindividual differences. A more severe history of childhood emotional abuse (CEA) and more foster placement disruptions (PD) predicted narrative features at wave 1. Specifically, CEA predicted higher negative affect while PD predicted both lower integration and higher negative affect. Emerging adults' narrative process features were related to their concurrent and future coping strategy use, whereas narrative content features were primarily related to their mental health functioning. The current findings suggest that young adults who have aged out of foster care experience narrative vulnerabilities across their transition to adulthood. These vulnerabilities may reflect emerging adults' limited access to support amidst escalating stressors associated with aging out and transitioning to adulthood. Implications for child welfare and therapeutic practices to address these concerns are discussed.

When you are in the middle of a story it isn't a story at all, but only a confusion; a dark roaring, a blindness, a wreckage of shattered glass and splintered wood; like a house in a whirlwind, or else a boat crushed by the icebergs or swept over the rapids, and all aboard powerless to stop it. It's only afterwards that it becomes anything like a story at all. When you are telling it, to yourself or to someone else.

— Margaret Atwood, Alias Grace

Narratives are the stories we tell about ourselves and our life experiences. Especially when focused on difficult life events, such as foster care, narratives influence how we relate to our past, present, and future selves (Singer, 2004), and thus shape development and adaptation (McAdams & McLean, 2013). Narrative studies show that features, such as reflective functioning (i.e., the capacity to recognize and interpret mental states in the self and others; Fonagy & Target, 1997) and positive affective content (i.e., expressions of happiness or joy; McAdams et al.,

2006), correlate with past developmental experiences and current adjustment (Adler et al., 2016). Understanding how expressions of narrative features change across formative developmental periods, such as emerging adulthood (Arnett et al., 2014), and documenting their relations with adaptive outcomes in the context of diverse life histories (e.g., foster care) will broaden the field of narrative research and inform therapeutic practices that harness narrative processes for positive change. This study achieved these goals by examining how narrative features develop across emerging adulthood and in the context of young people's unique life experiences associated with foster care.

Life experiences (and the narratives they inform) become especially salient during emerging adulthood when one's sense of identity and personal history take on increased significance (Arnett, 2000; Banks & Salmon, 2013). Young adults who develop meaningful and organized narratives about their experiences generally achieve better adjustment

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outcomes (e.g., well-being, mental health; McAdams & McLean, 2013). However, young adults who have aged out of the foster care system experience marked disruptions in the quality and continuity of important familial relationships that may challenge their narrative processing and content in ways that undermine their adaptation.

Amidst a burgeoning literature on narratives about various lived experiences (e.g., parenting children with disabilities, sexual assault, immigration; Greenhoot et al., 2013; King et al., 2000; Sher-Censor & Mizrahi-Zinman, 2021) in a range of populations (e.g., seniors, teachers, women, children; Conway & Holmes, 2004; Fivush et al., 2003; Römisch et al., 2014; Sher-Censor et al., 2019), surprisingly little is known about the development and adaptive implications of narrative features among emerging adults who have aged out of foster care. Emerging adults with histories of foster care have navigated multiple adverse life events, which both precipitate entry into care and all too often persist during out-of-home placements (Riebschleger et al., 2015). Resultant disruptions in caregiving quality (Hyde & Kammerer, 2009) and continuity (Connell et al., 2006), as well as the loss of sibling and other relationships (Davies, 2015) influence adolescents' and emerging adult's identity development in self-protective ways (Colbridge et al., 2017). Identity research with adolescents (Kools & Kools, 1999) and emerging adults (Samuels & Pryce, 2008) who have been in foster care reveal themes of excessive self-reliance and beliefs that others cannot be counted on for support. These adverse experiences and resultant identity patterns may decrease the likelihood that emerging adults with a history of foster care will share their personal stories (Steenbakkers et al., 2016) in ways that may deprive them of opportunities to form meaningful, coherent narratives that promote positive adjustment and health identity development (McAdams & McLean, 2013). The current effort to understand changes in key narrative features among emerging adults who aged out of foster care can inform therapeutic interventions to target these narrative features and improve narrative meaning making, identity, and wellbeing.

Individuals who "aged out" of foster care comprise ~ 4% of the broader foster population who remained in the system until they age out or exit foster care and transition to adulthood (U.S Department of Health & Human Services, 2022). For the subset of young adults who age out of foster care, the challenge of developing a life narrative about their prior trauma and caregiving disruptions is magnified by the introduction of mounting (and often abrupt) adult responsibilities upon system exit (Mulkerns & Owen, 2008; Neimeyer, 2004). Indeed, as compared to their non-fostered peers, young adults who aged out of foster care display marked vulnerabilities in a range of domains, including housing (e.g., 30–50% experience homelessness vs. 4% of their non-fostered peers; Dworsky et al., 2013; van den Bree et al., 2009), education (e.g., 11.6% complete a 4-year college degree by age 26 vs. 27.7% of their low-income, first generation peers; Okpych & Courtney, 2021), and mental health (e.g., elevated traumatic stress, conduct, and mood disorders; Havlicek et al., 2013). Despite these vulnerabilities, many young adults who aged out of foster care show better-than-expected adaptive outcomes (i.e., resilience; Courtney et al., 2012; Yates & Grey, 2012). This investigation of narrative development among young adults who aged out foster care across their transition to adulthood provides a unique opportunity to examine 1) how young adults' narratives change across the first 5 years following their exit from foster care, 2) how experiences related to foster care influence their narrative development, and 3) how these narrative trajectories relate to emerging adults' multi-domain adjustment within and across time.

1. Narrative process and content

Across varied methods and analytic approaches, researchers have identified narrative elements that broadly encompass *process features*, such as reflective functioning, integration, and complexity, and *content features*, such as positive and negative affect. Narrative process features capture how the narrator explores, reflects, and interprets their

experiences to derive meaning (Weststrate et al., 2018). Narratives that exhibit *reflective functioning* provide explanations for and demonstrate understanding of one's own and others' actions or feelings (Borelli et al., 2019), often drawing connections between life experiences and the current self (i.e., *self-event connection*, Merrill et al., 2016). Narratives that feature high levels of *integration* provide a balance of factual details about one's lived experiences accompanied by appropriate affective tone (Singer et al., 2013) in a way that denotes congruence between the speaker's affect and cognition (Baxter et al., 2012). *Complex* narratives present a multifaceted picture of events that includes both positive and negative elements while considering different characteristics of people and events over time (Sher-Censor et al., 2019). Narrative content features focus on subject matter (Weststrate et al., 2018), including *positive* (e.g., joy and love) or *negative* (e.g., anger and sadness) emotional tone of the information conveyed (Fivush et al., 2000).

Despite cross-sectional research on narrative process (Llewellyn-Beardsley et al., 2019; Marin & Shkrel, 2019) and content (McCoy & Dunlop, 2017; Sher-Censor & Mizrahi-Zinman, 2021), research has only rarely considered the development of narrative features over time. Studies comparing narrative features across samples of different ages (e.g., Bluck and Glück, 2004; McAdams & McLean, 2013; Reese et al., 2011) suggest that narrative capacities improve with age. However, to our knowledge, only three studies have examined changes in narrative features within individuals over time. First, McAdams and colleagues (2006) found that expressions of personal growth, positive affect, and narrative complexity increased over time among college students who provided narratives about life events (e.g., high and low points, turning points, early memories) on three occasions across a 3-year-period. Second, using growth curve modeling to describe how narrative features change over time, Adler (2012) documented increasing levels of narrative content (i.e., agency), but not process (i.e., coherence), among 55 adults (~age 36) who provided written narratives following each of 12 therapy sessions across a period of several months. Finally, and in contrast to Adler (2012), Booker and colleagues (2022) found that narrative agency, but not coherence, declined over a period of two months and five narrative assessments in a sample of 300 emerging adults. The current study adds to this literature by offering a novel examination of narrative trajectories in a unique sample of young adults who aged out of foster care as they navigated the transition to adulthood.

2. The development of narrative features

Narrative capacities and the ability to draw meaning from experiences develop gradually in the context of repeated relational exchanges, particularly those between caregivers and children from early childhood through adolescence (Fivush et al., 2008; McLean et al., 2007). In typical development, narratives feature greater reflection, integration, and complexity over time (Reese et al., 2011). For example, cross-sectional research suggests that the ability to recognize how specific events influence emotional, psychological, or relational characteristics of the self (i.e., reflective functioning) increases from ages 12 to 21 (Chen et al., 2012). Some studies point to ongoing growth in narrative features across emerging adulthood followed by a plateau (Reese et al., 2011). However, prior studies using growth curve analyses to assess changes in narrative features over time have focused primarily on narrative agency and coherence with conflicting results (Adler, 2012; Booker et al., 2020). Building on prior studies, the first aim of this investigation was to describe changes in narrative process and content features among emerging adults across the first 5 years following their exit from the foster care system.

Young people in foster care have experienced a range of traumatic events (e.g., abuse, neglect, abandonment; Katz et al., 2017), marked disturbances in caregiving quality (Hyde & Kammerer, 2009) and continuity (Connell et al., 2006), and disruptions in sibling relationships (Davies, 2015), all of which may compromise typical patterns of

narrative development (Fivush et al., 2008; Richardson & Yates, 2014; Rock et al., 2015). As a population, emerging adults who have aged out of foster care show elevated rates of psychopathology (Lawrence et al., 2006) and challenges in various domains of adaptation (e.g., homelessness; Berzin et al., 2011) which may further undermine narrative development. Indeed, studies suggest that child welfare experiences interfere with narrative integration (i.e., congruence of affect with content) even after young adults have acquired stable living conditions (i.e., adoption; Baxter et al., 2012).

All forms of childhood maltreatment have documented ties to psychopathology (Jaffee, 2017) and identity disruption (Penner et al., 2019) in ways that influence how individuals construct their narratives about significant life events. However, some forms of maltreatment, such as child emotional abuse (CEA) and child neglect (CN), show particularly strong ties with psychopathology (e.g., depression and anxiety; Shapero et al., 2014), negative self-perceptions (Harvey et al., 2012), and disruptions in cognitive and socio-emotional competencies (Yates, 2007). Internalization of CEA may be especially disruptive to the emerging self-concepts (Wright et al., 2009) of young adults who have aged out of foster care, as well as to their construction of narratives about their experiences and identities (Banks & Salmon, 2013). These vulnerabilities may be magnified amidst emerging adults' ongoing exposure to stressful life events as they transition from foster care to adult independence (Riebschleger et al., 2015) resulting in altered trajectories of narrative features over time.

Importantly, a sizable minority of young adults who have aged out of foster care show better-than-expected adaptive outcomes (i.e., resilience; Miller et al., 2017; Yates & Grey, 2012). Individual differences in narrative development and resultant meaning making may account for these heterogeneous adaptive outcomes. Further, evidence demonstrating that narrative processes are malleable (Adler, 2012) speaks to the promise of narrative interventions as a site for positive therapeutic action. Therefore, in addition to exploring patterns of narrative change across the transition from foster care to adulthood, this study evaluated the unique contributions of young adults' child maltreatment and foster care placement characteristics to their narrative process and content features.

3. Narrative features and adaptation

High levels of narrative reflection, integration, and complexity, as well as balanced positive and negative narrative content, not only reflect a history of supportive developmental experiences, but also engender positive adaptation to current and future challenges (e.g., positive coping, social support, greater satisfaction with life, less psychopathology; Borelli et al., 2019; McLean et al., 2010; Mitchell et al., 2020). For example, adolescent boys' narratives about important life events that featured high reflection and complexity were positively related to wellbeing (i.e., low depression, low anxiety, and high self-esteem; McLean et al., 2010). Similarly, adolescents' reflective functioning in narratives about their attachment relationships were positively associated with wellbeing in emerging adulthood (Borelli et al., 2019). Other findings indicate that adolescents' narrative reflective functioning is associated with lower rumination and higher wellbeing (Mitchell et al., 2020). Narrative content features show similar associations with adaptation, such that, for example, individuals who express more positive affect in narratives about their romantic relationship are more likely to have better relationship quality and mental health in the future (Frost, 2013).

Narratives reflect and influence adaptive outcomes in all contexts, but they may take on special significance in contexts of adversity (McAdams, 2006), including foster care. For example, adult trauma narratives featuring greater elaboration, whether positive or negative in valence, were associated with less psychological distress (Beaudreau, 2007). Likewise, trauma narratives featuring high reflection about one's thinking and feeling during an event, what drove the actions of self and

other, and how events continue to influence feelings, have been linked to more active coping strategies (Booker et al., 2020). However, other findings suggest that reflective functioning shows complex relations with adaptation in the context of trauma narratives (Merrill et al., 2016). Specifically, in a college sample of young adults, reflection focused on identifying damage connected to an experience was related to more depression and anxiety, but reflection focused on positive changes related to difficult experiences was linked to positive identity exploration and commitment. Regarding narrative content, positive affect in trauma narratives is associated with fewer negative psychological symptoms (Jaeger et al., 2014). The current study focused on narratives about foster care to understand how the process and content of emerging adults' meaning making about these experiences correlated with their coping, social support, and mental health adjustment across the transition to adulthood.

4. Study Overview

The current investigation built on prior research efforts using growth curve analyses to understand narrative change and growth trajectories (Adler, 2012; Booker et al., 2022). Specifically, we explored how emerging adults who had aged out of the foster care system drew meaning from their experiences in foster care as indicated by how they organized their stories about their experiences in foster care (i.e., narrative process) and what they focused on (i.e., narrative content). Further, we explored how these narrative growth features related to multiple domains of emerging adults' adjustment (i.e., coping, support, mental health). This investigation identified developmental trajectories of narrative process and content features drawn from verbal reflections, which were collected at four data waves spanning emerging adults' first 5 years after aging out of the foster care system. We hypothesized that a history of CEA and greater placement disruption would predict lower initial levels of reflective functioning, integration, complexity, and positive affect, but higher levels of negative affect. Further, we expected these factors would predict shallower increases in reflective functioning, integration, complexity, and positive affect across emerging adults' first 5 years out of the system, but steeper increases in negative affect. Finally, we tested whether narrative features were related to concurrent and prospective markers of young adult adjustment regarding support seeking (e.g., emotional and instrumental support), positive coping (e.g., self-distraction, positive reframing, acceptance), perceived support (e.g., from family and friends), and symptoms of internalizing (e.g., anxiety, depression) and externalizing (e.g., conduct disorders, aggression) problems. We hypothesized that higher initial capacities (wave 1) and steeper increases (waves 1–4) for narrative processing (i.e., reflective functioning, complexity, integration) and positive affect would be correlated with positive adaptation. Regarding negative content, we predicted that lower initial expressions of negative affect at wave 1 with shallower inclines (or decreasing levels) across waves 1–4 would be related to more positive adjustment indicators. In sum, this investigation advanced our understanding of narrative formation and adaptation in a sample of young adults who had aged out foster care to illuminate narrative patterns of risk and resilience, and by extension, potential sites for future intervention

5. Method

5.1. Participants

Participants were drawn from a longitudinal study of 172 emerging adults who had aged out of the child welfare system in Southern California. Participating young adults (66.3% female-identified) completed face-to-face interviews approximately 1.5 years ($\text{Mean}[M] = 1.6$, $\text{Standard Deviation}[SD] = 2.7$) following their exit from foster care ($N = 172$, $M_{\text{age}} = 19.6$, $SD = 1.1$), 2.5 years ($M = 2.7$, $SD = 2.9$) after aging out ($N = 144$, $M_{\text{age}} = 20.7$, $SD = 1.1$), 4 years ($M = 4.4$, $SD = 3.0$) after aging

out ($N = 137$, $M_{age} = 22.4$, $SD = 1.1$), and 5 years ($M = 6.1$, $SD = 3.1$) after aging out ($N = 123$, $M_{age} = 24.1$, $SD = 1.1$). Participants were racially and ethnically diverse with 33.1% identifying as multiracial, 23.5% as Black, 15.6% as Latine, and 15.6% as white. At wave 1, participants reported a range of educational attainment from no high school diploma or General Educational Development (GED; 29.1%), to having a high school diploma, GED, or vocational training (22.7%), to some college coursework (48.3%), though only 6.6% reported attending a four-year-university. On average, participants entered foster care at 8.7 years ($SD = 0.4$) and experienced seven different placements ($SD = 4.9$) before aging out at 18 ($M = 18.2$, $SD = 0.52$), with 95% of the sample experiencing multiple placement types (e.g., kinship, foster, group home).

5.2. Procedures

Flyers inviting participation in a study titled, "Adapting to Aging Out" were distributed to social service providers, independent living programs, and agencies serving transition-aged youth with a history of foster care (e.g., resource centers, health clinics) between 2009 and 2011. Participants completed a brief phone screening before scheduling a face-to-face interview. Of the 199 young adults who called, 190 completed the wave 1 interview (nine young adults fell outside the target age range of 18–21 at the time of initial contact). However, 18 of these initial participants were excluded after completing the first interview because they entered care after age 16 ($n = 8$) or due to juvenile delinquency in the absence of maltreatment ($n = 10$). In-person interviews lasting ~ 3 hr were conducted by trained doctoral students and post-baccalaureate staff in the laboratory (87.5%) or in private community settings (e.g., offices, libraries; 12.5%). Participants provided a verbal narrative about their experiences in foster care at all four waves of the study, they reported on their maltreatment and child welfare histories at wave 1, and provided indicators of concurrent and prospective adjustment at waves 1 and 4. All interviews were conducted in English and audio recorded. At each wave, participants provided written informed consent. They received \$25–50 per interview hour with rates gradually increasing across the four data waves. All procedures were approved by the institutional research review board of the participating university.

5.3. Measures

Narrative features. Participant's narrative features were assessed using an adapted Five-Minute Speech Sample (FMSS; Magaña et al., 1986) during which participants were instructed to speak for five uninterrupted minutes about "what it was like for you in foster care and how those experiences have affected or influenced you." After the participant began speaking, interviewers offered only one prompt if the participant fell silent for 30 s or longer: "Please tell me more about what it was like for you in foster care and how it affected or influenced you for a few more minutes." FMSS narratives were audio-recorded, transcribed verbatim, and coded by doctoral-level researchers who were naïve to all information about the participant.

Narrative features were coded using scales that were adapted for the current study from Sher-Censor and Yates' (2012) FMSS Coherence Coding Manual, which was developed using a similarly diverse sample that was 77.78% non-white (Sher-Censor & Yates, 2015) and was informed by both the Insightfulness Assessment (Koren-Karie & Oppenheim, 2004) and narrative measures of attachment (Main et al., 2003; Robinson et al., 1992) that have been widely used with ethnically and racially diverse samples. Each narrative feature was rated on a 7-point scale from 1 (*low*) to 7 (*high*) by a minimum of two coders. Scoring differences were resolved via consensus meetings. Table 1 depicts the M , SD , and intraclass correlation (ICC) for each narrative feature at each data wave. Below, we provide descriptions and exemplars of the five narrative features examined in this study. Higher scores

were assigned to narratives that included several strong examples, whereas moderate scores were assigned to narratives that included only weak examples or a single strong example.

5.4. Narrative process features

1 *Reflective functioning* captured the degree to which the young adult could think critically about their past, present, and future in relation to their time in foster care. This included metacognitive capabilities such as reasoning about why they and others felt or acted in certain ways.

I was in three different foster homes and so it opened my eyes to...umm the way normal functioning families were supposed to...function and just be like and... I feel like it shaped me umm it's...it's made my life...it's, it's made me more open, I guess to umm how I want to raise my family in the future, as well as what I want to do with my life...They helped me to realize that I could make my dreams reality...Of course there were like ups and downs in the whole, they're not really your family but they are your family. And so, I feel like because of that experience I also have a constant need to...umm...prove, I, a const-, a constant need to...have approval of others, because I was searching for love and that's not what they give you in foster homes. And so, I'm kind of like on a constant search for that approval. [Black male, age 20, wave 1]

2 *Integration* captured the extent to which the young adult was able to balance cognitive or intellectual aspects of their narrative with appropriate affective or emotional expression and vice-versa. Narratives that were well integrated described the facts of the young adult's experiences with accompanying details about how they felt about the experience without getting overwhelmed by emotional content. Narratives earned lower scores on this scale if they either demonstrated mostly intellectualized content or were consumed by the emotional impact of the event.

But of course, it does have its negatives, like I do sometimes feel I don't have... a real family. I mean, I do because I love my family to death, but you know... sometimes I don't always feel like a part of the family. Just because I—it's not blood... That's the one thing I hate. The label that it puts on us because we're all normal, we just don't have parents to buy us everything. [Black female, age 21, wave 3]

3 *Complexity* captured the extent to which the young adult addressed multiple experiences and contexts in their narrative, including both positive and negative elements. This scale assessed whether the participant discussed experiences as relevant to various settings (e.g., biological family, foster placement, education) and relationships (e.g., teachers, peers, family).

When I was placed in foster care, I was in ninth grade... I had always believed that my mother was going to do what the workers had asked of her and get us back. So, I always hoped... for like a year... eventually I just realized that it wasn't gonna happen... When I came to that realization, I kind of got depressed... I grew a lot of anger towards my family. In general, I felt like we were left, we were abandoned basically and they really didn't care about us. I started realizing that... I had to do it not for anyone else, to meet anyone else's expectations, but to meet my own... so I can change my future... That's what instilled in me strong self-will and self-motivation to continue my education and complete it, and further my education after high school. [Latino male, age 19, wave 2]

Narrative Content Features.

4 *Negative affect* encompassed content pertaining to experiences characterized by anger, frustration, sadness, and other negative emotions. This scale assessed the depth/intensity and/or frequency of negative feelings expressed throughout the narrative.

You gotta obey people that you don't even know... that's not really your mom or dad or any family related. Man, staff they get you even more angered. Staff don't really care. I mean, they there to get you know, eight

Table 1
Descriptive and correlations among narrative features.

		Wave 1 1.5 years post-exit					Wave 2 2.5 years post-exit					Wave 3 4 years post-exit					Wave 4 5.5 years post-exit				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	Reflective Functioning (T1)	–																			
2.	Integration (T1)	0.553**	–																		
3.	Complexity (T1)	0.591**	0.646**	–																	
4.	Negative Affect (T1)	0.129	–0.079	–0.045	–																
5.	Positive Affect (T1)	0.230**	0.476**	0.541**	–0.587**	–															
6.	Reflective Functioning (T2)	0.325**	0.274**	0.221**	0.157	0.104	–														
7.	Cognitive-Affective Integration (T2)	0.176*	0.323**	0.291**	0.070	0.186*	0.583**	–													
8.	Complexity (T2)	0.248**	0.238**	0.336**	0.046	0.201*	0.599**	0.703**	–												
9.	Negative Affect (T2)	0.181*	–0.094	0.032	0.354**	–0.226**	0.115	–0.069	0.060	–											
10.	Positive Affect (T2)	–0.073	0.061	0.063	–0.222**	0.191*	0.238**	0.458**	0.548**	–0.498**	–										
11.	Reflective Functioning (T3)	0.340**	0.254**	0.273**	0.166	0.086	0.276**	0.375**	0.313**	0.110	0.093	–									
12.	Integration (T3)	0.209*	0.308**	0.313**	–0.001	0.202*	0.216*	0.294**	0.279**	0.024	0.154	0.722**	–								
13.	Complexity (T3)	0.307**	0.326**	0.332**	0.101	0.160	0.247**	0.293**	0.297**	0.135	0.079	0.807**	0.802**	–							
14.	Negative Affect (T3)	0.199*	0.048	0.023	0.272**	–0.252**	–0.027	0.040	0.015	0.292**	–0.276**	0.262**	0.176*	0.195*	–						
15.	Positive Affect (T3)	0.115	0.230**	0.296**	–0.230**	0.314**	0.172	0.183*	0.309**	–0.148	0.358**	0.270**	0.426**	0.480**	–0.414**	–					
16.	Reflective Functioning (T4)	0.353**	0.249**	0.247**	0.176	0.071	0.195*	0.282**	0.262**	0.068	0.047	0.473**	0.295**	0.283**	0.194*	0.151	–				
17.	Cognitive-Affective Integration (T4)	0.277**	0.233*	0.323**	–0.014	0.212*	0.110	0.242*	0.257**	–0.050	0.105	0.338**	0.281**	0.259**	0.163	0.109	0.675**	–			
18.	Complexity (T4)	0.222*	0.340**	0.276**	0.006	0.227*	0.141	0.216*	0.269**	–0.031	0.135	0.286**	0.319**	0.268**	0.093	0.252**	0.688**	0.732**	–		
19.	Negative Affect (T4)	0.140	–0.067	–0.102	0.416**	–0.247**	–0.114	–0.073	–0.087	0.330**	–0.357**	0.073	–0.082	–0.020	0.420**	–0.370**	0.125	0.003	0.138	–	
20.	Positive Affect (T4)	0.019	0.259**	0.151	–0.245**	0.279**	0.150	0.225*	0.266**	–0.332**	0.386**	0.282**	0.423**	0.359**	–0.196*	0.497**	0.314**	0.418**	0.442**	–0.481*	–
	M	4.42	4.24	3.94	5.01	3.79	4.69	4.66	3.97	4.78	3.93	4.28	4.18	3.82	4.55	3.89	3.95	3.98	3.60	4.52	3.79
	SD	1.2	1.1	1.1	1.2	1.3	1.2	1.2	1.1	1.2	1.5	1.4	1.2	1.3	1.3	1.4	1.3	1.1	1.2	1.5	1.5
	ICC	0.62	0.71	0.76	0.86	0.83	0.68	0.72	0.78	0.83	0.78	0.72	0.64	0.75	0.86	0.89	0.75	0.63	0.72	0.81	0.87

Note: Boxes denote concurrent correlations among narrative features for each data wave.

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

bucks an hour, they don't really care, they just, this is at group homes, they don't really care, their eight dollars all they want in their check. So, they don't really try to do nothing for you, so you really pretty much on your own all the time. [multiracial male, age 18, wave 1]

5 *Positive affect* encompassed content pertaining to experiences characterized by happiness, love, pride, and other positive emotions. This scale assessed the depth/intensity and/or frequency of positive feelings expressed throughout the narrative.

"I was kinda thankful that we were in foster care cause... I think we turned out okay. We're still going to school... got a job and everything, and we're okay now, but it was sad when we were in there, and um, now that we got out of foster care, um, I think it's only made me stronger... I think it's prepared me a lot. [Latina female, age 21, wave 2]

Child maltreatment history. The frequency, severity, and duration of each maltreatment type experienced prior to age 17 were assessed using The Early Trauma Inventory (ETI; Bremner et al., 2000). The ETI is a behaviorally-specific, semi-structured interview that asks about ages of onset and offset, frequency, perpetrator identity, and resulting injuries and interventions (e.g., medical, legal) for experiences of CEA (i.e., verbal communications that attacked the child's sense of self-worth or safety, such as being put down, called names, or ignored), childhood neglect (CN; i.e., deprivation of basic material and/or emotional needs), childhood sexual abuse (CSA; i.e., unwanted sexual contact or exposure by a person five or more years older than the child), and childhood physical abuse (CPA; i.e., physical harm inflicted by adult caregivers). Two independent raters who were naïve to all other information about the participant evaluated the severity of each maltreatment type from 0 (*no abuse*), 1 (*mild abuse*), 2 (*moderate abuse*), to 3 (*severe abuse*), using criteria set forth by McGee and colleagues (1995). Mild severity cases were low/moderate intensity and low frequency, moderate severity cases were high intensity and low frequency or low intensity and high frequency, and high severity ratings were assigned cases when the maltreatment was both high intensity and high frequency. Reliabilities for severity ratings across all cases were acceptable (CEA ICC = 0.88, CN ICC = 0.77, CSA ICC = 0.90, CPA ICC = 0.82).

Child welfare history. Semi-structured interviews collected information about each participant's child welfare history starting from when they first entered out-of-home placement and extending until the time they aged out to assess placement disruptions (i.e., total number of placements) and types (e.g., youth shelter, group home, foster family). The current analyses utilized age at first placement and total number of placements (i.e., placement disruption). Child welfare history variables were coded as missing if the participant was unsure of 20% or more of their placement experiences due to lack of memory ($n = 11$).

Coping. Participants completed the 28-item Brief COPE Inventory (Carver, 1997), which included two items to assess each of fourteen coping strategies on a 5-point scale from 0 (*I haven't been doing this at all*) to 4 (*I've been doing this a lot*). The Brief COPE inventory has demonstrated good reliability and validity in other populations (Monzani et al., 2015; Su et al., 2015). Scores were grouped into two categories representing positive coping (i.e., self-distraction, active, positive reframing, planning, acceptance) and support seeking (i.e., use of emotional, instrumental support, and religion). Both scales showed good internal consistency at waves 1 ($\alpha_{Pos} = 0.87$, $\alpha_{Sup} = 0.84$) and 4 ($\alpha_{Pos} = 0.90$, $\alpha_{Neg} = 0.75$).

Perceived social support. The Berlin Social Support Scale (BSSS; Schulz & Schwarzer, 2003) included four items measuring participants' perceived emotional support (i.e., affection, encouragement, and empathy in times of distress, e.g., "When I am worried, there is someone who helps me") and four items measuring participants' perceived instrumental support (i.e., tangible support consisting of offering materials or physical help; e.g., "When everything becomes too much for me to handle, others are there to help me") on a 4-point scale from 1 (*strongly disagree*) to 4 (*strongly agree*). The BSSS demonstrates strong validity and

reliability in prior studies (DiMillo et al., 2019; Schulz & Schwarzer, 2003). Reliabilities for total perceived social support were strong at waves 1 ($\alpha = 0.91$) and 4 ($\alpha = 0.95$).

Life satisfaction. The Satisfaction with Life Scale (SWLS; Diener et al., 1985) included 5 statements (e.g., *In most ways my life is close to ideal, I am satisfied with my life*), rated on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The SWLS shows strong internal consistency in prior research ($\alpha = 0.87$; Diener et al., 1985), as well as in the current sample at waves 1 ($\alpha = 0.90$) and 4 ($\alpha = 0.92$).

Youth-reported psychopathology. The Brief Symptom Inventory (BSI; Derogatis, 1993) assessed 53 symptoms of depression, anxiety, hostility, paranoid ideation, somatization, obsession-compulsion, interpersonal sensitivity, phobic anxiety, and psychoticism. Participants were asked to indicate the degree to which each symptom bothered them in the past week on a 4-point scale from 0 (*not at all*) to 4 (*extremely*). Previous work indicates the BSI has good reliability and validity (Boulet & Boss, 1991). The global symptom severity index (i.e., total raw score) used in this study showed high reliability at waves 1 ($\alpha = 0.98$) and 4 ($\alpha = 0.97$).

Analytic Plan.

Descriptive and bivariate analyses were conducted using IBM SPSS Statistics (Version 28). Four multivariate analysis of variance (MANOVA) tests evaluated group differences across study variables as a function of participants' gender, ethnicity-race, and their interaction. MANOVAs evaluated 1) all five narrative features across the four data waves, 2) six antecedent predictors, 3) five concurrent indicators of adjustment at wave 1, and 4) the same five indicators of adjustment at wave 4.

Narrative data were missing at wave 1 for two cases due to recording errors. At waves 2, 3, and 4, data were missing for 29, 35, and 50 cases, respectively, due to attrition. In addition, at wave 1 participants reported insufficient information to code severity for CEA ($n = 2$), CN ($n = 1$), CSA ($n = 5$), and CPA ($n = 2$). Two cases did not report the age they first entered foster care and, as noted earlier, 11 cases were coded as missing for placement disruption due to participants' lack of memory. Wave 1 adjustment indicators were missing for coping ($n = 3$), perceived support ($n = 2$), satisfaction with life ($n = 8$), and psychopathology ($n = 3$). In addition to the 49 participants who did not complete the wave 4 assessment, adjustment indicators were missing for positive coping ($n = 1$) and perceived support ($n = 2$). Across waves, 156 (90.7%) participants completed two or more waves, 140 (81.4%) completed three or more waves, and 104 (54.7%) completed all four data waves. Chi-square analyses indicated that males were overrepresented among participants who did not return for one or more follow-up assessments ($\chi^2[1] = 6.54$, $p = .011$), but there were no significant ethnic or racial differences between those who completed one or more follow ups and those who did not. Independent samples t -tests indicated significant differences in CSA severity [$t(165) = -2.136$, $p = .048$] and negative coping [$t(167) = 2.12$, $p = .036$] for those who did versus did not complete one or more follow-up waves. Individuals who continued in the study reported higher CSA severity ($M = 1.12$, $SD = 1.2$) than those who did not ($M = 0.50$, $SD = 1.0$) and used significantly fewer negative coping strategies ($M = 19.49$, $SD = 6.9$) than those who dropped out ($M = 23.44$, $SD = 8.6$). Despite some differences, Little's (1988) MCAR test indicated that missingness was completely at random ($\chi^2[1086] = 177.48$, $p = 1.00$). Attrition analyses supported our use of Full Information Maximum Likelihood (FIML) estimation to accommodate missing data with a control for participants' gender.

Growth curve models were fit in accordance with contemporary nesting approaches (Duncan & Duncan, 2004) across four data waves for each of the five narrative features (i.e., reflective functioning, integration, complexity, negative affect, positive affect) using a structural equation modeling (SEM) approach with the "lavaan" (Rosseel, 2012) package in R v4.3.2 (R Core Team, 2023). This analytic approach models repeated measures across three or more time points to establish an average starting point (i.e., intercept) and variability around that point

(i.e., intercept variance), as well as the average change or trajectory of values over time (i.e., slope) and variability around that average change or trajectory (i.e., slope variance). A significant intercept indicates that the average value of the construct at that time point differs from zero, and significant intercept variance indicates between-person differences in intercept values. A significant slope indicates that the average trajectory of values across time differs from zero, and significant slope variance indicates between-person differences in change trajectories. We modeled these growth curves with an SEM framework because it is best-able to account for measurement error (i.e., noise; [Nylund-Gibson & Choi, 2018](#)).

Multiple regression analyses tested for unique contributions of CEA, CN, CSA, and CPA severity, as well as child welfare characteristics with regard to age at first out-of-home placement and total placement disruption, to each growth curve parameter that showed significant variance. Correlation analyses examined associations between extracted growth parameters that showed significant variance and adjustment indicators at waves 1 (i.e., ~1.5 years after aging out) and 4 (i.e., ~5 years after aging out).

6. Results

6.1. Descriptive and bivariate analyses

Descriptive and bivariate relations among the five narrative features across the four data waves are displayed in [Table 1](#). A MANOVA revealed no significant differences by gender [$F(20, 73) = 1.00, p = .476$; Wilks' $\lambda = 0.79$], ethnicity and race [$F(60, 225) = 0.81, p = .833$; Wilks' $\lambda = 0.55$], nor their interaction [$F(6, 218) = 0.91, p = .665$; Wilks' $\lambda = 0.52$] across the four waves. However, a MANOVA identified significant gender differences across antecedent variables [$F(6, 143) = 3.30, p = .005$; Wilks' $\lambda = 0.88$], but there were no significant differences across ethnic and racial groups [$F(18, 435) = 1.35, p = .134$; Wilks' $\lambda = 0.84$] or their interaction [$F(18, 404) = 0.70, p = .814$; Wilks' $\lambda = 0.92$]. Females reported more severe CSA ($M = 1.21, SD = 1.2$) than males ($M = 0.52, SD = 0.95$), [$F(1, 155) = 11.19, p = .001$]. Significant differences were also identified for gender [$F(6, 128) = 2.12, p = .037$; Wilks' $\lambda = 0.90$] but not ethnicity and race [$F(18, 363) = 0.83, p = .662$; Wilks' $\lambda = 0.89$] nor their interaction [$F(18, 363) = 0.89, p = .589$; Wilks' $\lambda = 0.89$] across wave 1 indicators of adjustment. Females reported more support seeking ($M = 14.16, SD = 5.0$) and perceived support ($M = 27.16, SD = 4.8$) than males ($M_{seeking} = 12.27, SD_{seeking} = 4.4$; $M_{perceived} = 25.18, SD_{perceived} = 5.6$), [$F_{seeking}(1, 113) = 4.73, p = .031$; $F_{perceived}(1, 133) = 5.19, p = .024$]. Finally, a MANOVA revealed significant differences by gender [$F(4, 108) = 3.08, p = .019$; Wilks' $\lambda = 0.90$] but not ethnicity and race [$F(12, 286) = 1.78, p = .051$; Wilks' $\lambda = 0.83$], nor their interaction [$F(12, 268) = 0.52, p = .903$; Wilks' $\lambda = 0.95$] across wave 4 adjustment indicators. Five years after aging out, males reported higher levels of positive affect [$M = 27.62, SD = 7.4$; $F(1, 117) = 7.30, p = .008$] than females ($M_{pos} = 23.65, SD_{pos} = 8.5$).

Bivariate analyses showed narrative features correlated in expected directions at all data waves. Specifically, narrative process features (i.e., reflective functioning, integration, and complexity) were positively correlated within time ($rs = 0.553$ to 0.807) and across time ($rs = 0.110$ to 0.340). Regarding narrative content, positive and negative affect were negatively correlated within time ($rs = -0.414$ to -0.587) and across time ($rs = -0.148$ to -0.370). Notably, narrative processes generally correlated positively with positive affective content concurrently ($rs = 0.230$ to 0.548) and across time ($rs = 0.183$ to 0.423), but relations with negative affective content were not significant, except within wave 3. All narrative features showed significant stability across waves ($rs = 0.191$ to 0.497).

6.2. Latent growth curves

[Table 2](#) displays estimates for the growth curve models of the five

Table 2

Standardized Parameter Estimates for Narrative Feature Growth Curves.

	β	<i>B</i>	<i>SE</i>	<i>p</i>	95% Bias-Corrected CI	
					LL	UL
Reflective Functioning						
Intercept	6.39	4.54	0.09	< 0.001	4.37	4.72
Intercept Variance	1.00	0.51	0.16	0.002	0.18	0.83
Slope	-0.57	-0.11	0.04	0.001	-0.18	-0.04
Slope Variance	1.00	0.04	0.03	0.144	-0.02	0.09
Integration						
Intercept	6.51	4.37	0.08	< 0.001	4.21	4.53
Intercept Variance	1.00	0.45	0.14	0.002	0.19	0.74
Slope	-0.51	-0.07	0.03	0.029	-0.13	0.00
Slope Variance	1.00	0.02	0.03	0.503	-0.03	0.07
Complexity						
Intercept	5.69	3.97	0.08	< 0.001	3.82	4.12
Intercept Variance	1.00	0.49	0.13	< 0.001	0.25	0.74
Slope	-0.57	-0.07	0.03	0.022	-0.12	-0.01
Slope Variance	1.00	0.02	0.03	0.561	-0.03	0.07
Negative Affect						
Intercept	7.70	4.95	0.09	< 0.001	4.78	5.12
Intercept Variance	1.00	0.41	0.16	0.008	0.11	0.73
Slope	-1.67	-0.12	0.03	< 0.001	-0.18	-0.06
Slope Variance	1.00	0.01	0.03	0.847	-0.05	0.06
Positive Affect						
Intercept	6.57	3.85	0.09	< 0.001	3.68	4.03
Intercept Variance	1.00	0.34	0.20	0.08	-0.07	0.72
Slope	0.26	0.02	0.04	0.602	-0.06	0.09
Slope Variance	1.00	0.01	0.04	0.884	-0.07	0.08

Note: Bold denotes significant parameter estimates.

narrative features. Estimates include the intercept (i.e., average value of the narrative feature at wave 1), intercept variance (i.e., variations around the average value of the narrative feature at wave 1), slope (i.e., average rate of change in expression of the narrative feature across the first 5 years post-exit), and slope variance (i.e., variations around the average rate of change in the narrative feature expression across the four data waves). Chi-square analyses compared unconditional means-only models to a growth model with a linear trend for all narrative features. Results indicated the linear model was a better fit for reflective functioning ($p = .002$) and negative affect ($p < 0.001$), but not for integration ($p = .075$), complexity ($p = .073$), nor positive affect ($p = .182$). However, the intercept variance was significant for integration ($p = .002$) and complexity ($p < 0.001$), but not for positive affect ($p = .072$). This suggests that expressions of integration, complexity, and positive affect were largely stable across the first 5 years following aging out of care.

Regarding narrative processes, the intercept and intercept variance for the best fitting model for reflective functioning was statistically significant ($p_{intercept} < 0.001, p_{variance} = 0.002$). On average, emerging adults showed a capacity to reflect on their experiences in foster care (i.e., reflective functioning) that was significantly different than zero at 1.5 years following their exit from foster care. However, the estimate for the intercept was below the threshold that would be considered well developed. Importantly, there were significant differences across emerging adults in the degree to which they expressed reflective functioning in their narratives (e.g., some young adults were significantly more reflective than their peers). On average, reflective functioning

showed significant declines over time, but the slope variance terms did not attain significance, which suggests that young adults did not show differing rates of decline in their reflective functioning across the first 5 years post-exit.

Regarding narrative content, negative affect showed both a significant intercept ($p < 0.001$) and intercept variance ($p = .005$), indicating that young adults expressed negative affect in their narratives at wave 1 to differing degrees. On average, negative affect showed a significant decline across the first 5 years post-exit (i.e., all participants' narratives were characterized by decreasing negative affect over time), though the absence of significant slope variance revealed no significant differences in the degree to which participants' expression of negative affect declined.

6.3. Predicting narrative features

Table 3 depicts the estimates predicting the intercepts from the best fitted models of narrative features with significant intercept variance (i.e., reflective functioning, integration, complexity, and negative affect) from young adults' child maltreatment and child welfare history characteristics. Across measures of child maltreatment severity, CEA emerged as a unique predictor of higher negative affect expression at wave 1 ($B = 0.24, p = .011$). Regarding child welfare history, placement disruption, but not age at first placement, predicted lower initial levels of narrative integration ($B = -0.34, p = .006$) and more negative affect expression in participants' narratives at wave 1 ($B = 0.43, p < 0.001$).

6.4. Narrative features and concurrent adjustment

Table 4 depicts bivariate associations between extracted narrative feature intercepts and concurrent adjustment indicators at wave 1 (i.e., positive coping, support seeking, perceived social support, satisfaction with life, psychopathology). Narrative process features were significantly associated with young adults' self-reported coping strategies, but not with their self-reports of psychopathology. Specifically, reflective functioning, integration, and complexity were associated with more positive coping strategy use. Integration was also positively correlated with support seeking. In contrast, narrative content features were related to emerging adults' adjustment indicators, but not to their reported coping strategies. Specifically, negative affect correlated with self-reports of lower satisfaction with life and greater psychopathology.

6.5. Narrative features and future adjustment

Table 5 depicts bivariate associations between extracted narrative feature intercepts and these same adjustment indicators at wave 4 (i.e., 5 years after aging out of foster care). Over time, participants' narrative process features continued to show relations with coping at wave 4. Reflective functioning remained positively correlated with positive coping while all three process features were related to support seeking at wave 4. For narrative content, negative affect continued to be negatively correlated with later adjustment (i.e., satisfaction with life), but not with coping.

7. Discussion

This study documented changes in narrative features among young adults who had aged out foster care with regard to both process (i.e., reflective functioning, integration, and complexity) and content (i.e., negative and positive affect) across four interviews spanning the first 5 years of their transition from foster care to adulthood. We further explored child maltreatment and placement predictors of emerging adults' narrative features, as well as their concurrent and prospective adjustment correlates with regard to their coping, social support, life satisfaction, and psychopathology. Emerging adults who had aged out of foster care varied in their expression of narrative process features (i.e.,

Table 3

Predicting Narrative Feature Intercepts from Child Maltreatment and Foster Placement Characteristics.

	β	b	SE	p	95% Bias-Corrected CI	
					LL	UL
Reflective Functioning Intercept						
Emotional Abuse Severity	0.23	0.16	0.09	0.071	-0.02	0.31
Neglect Severity	0.16	0.11	0.09	0.229	-0.06	0.29
Sexual Abuse Severity	0.04	0.02	0.06	0.740	-0.10	0.15
Physical Abuse Severity	-0.23	-0.13	0.08	0.131	-0.29	0.04
Age at first placement	0.05	0.01	0.01	0.717	-0.02	0.03
Total Placements	-0.12	-0.02	0.02	0.279	-0.05	0.01
Gender	-0.01	-0.01	0.16	0.980	-0.30	0.32
Integration Intercept						
Emotional Abuse Severity	0.16	0.10	0.07	0.153	-0.05	0.23
Neglect Severity	0.03	0.02	0.08	0.835	-0.14	0.18
Sexual Abuse Severity	0.15	0.07	0.06	0.218	-0.05	0.19
Physical Abuse Severity	-0.14	-0.07	0.06	0.248	-0.19	0.04
Age at first placement	0.15	0.02	0.01	0.204	-0.01	0.04
Total Placements	-0.34	-0.04	0.02	0.006	-0.07	-0.01
Gender	0.18	0.14	0.13	0.288	-0.12	0.41
Complexity Intercept						
Emotional Abuse Severity	0.12	0.07	0.08	0.334	-0.07	0.22
Neglect Severity	0.13	0.08	0.09	0.326	-0.09	0.24
Sexual Abuse Severity	0.01	0.01	0.07	0.933	-0.13	0.14
Physical Abuse Severity	-0.11	-0.06	0.07	0.396	-0.18	0.04
Age at first placement	0.12	0.01	0.01	0.344	-0.01	0.04
Total Placements	-0.22	-0.03	0.02	0.072	-0.06	0.00
Gender	0.02	0.02	0.14	0.884	-0.25	0.33
Negative Affect Intercept						
Emotional Abuse Severity	0.30	0.24	0.09	0.011	0.06	0.42
Neglect Severity	-0.06	-0.05	0.10	0.653	-0.24	0.14
Sexual Abuse Severity	-0.03	-0.20	0.07	0.773	-0.15	0.10
Physical Abuse Severity	-0.03	-0.02	0.08	0.792	-0.17	0.15
Age at first placement	0.09	0.01	0.02	0.421	-0.02	0.04
Total Placements	0.43	0.07	0.02	< 0.001	0.04	0.10
Gender	-0.03	-0.05	0.17	0.768	-0.40	0.29

Note: Bold denotes significant parameter estimates.

reflective functioning, integration, and complexity) 1.5 years following their exit from care and demonstrated a uniform decline in their reflective functioning across emerging adulthood. Likewise, these young adults varied in their expression of negative affective content, but not positive affective content, at the time of the initial assessment which declined over time for all participants. Higher CEA severity and more placement disruptions while in foster care predicted initial expressions of lower narrative integration and higher negative affective content. Narrative process features tended to be more strongly associated with

Table 4
Correlations between Narrative Intercepts and Concurrent Indicators of Adjustment.

	Self-Report Positive Coping	Support Seeking	Perceived support	Satisfaction with Life	Psycho-pathology
Reflective Functioning	0.19*	0.13	0.02	−0.03	0.01
Integration	0.19*	0.19*	0.14	0.08	−0.10
Complexity	0.20*	0.11	0.06	0.04	−0.07
Negative Affect	0.04	−0.04	−0.10	−0.22**	0.23**

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

Table 5
Correlations between Narrative Intercepts and Indicators of Adjustment 5 Years Post-Exit.

	Positive Coping	Support Seeking	Perceived support	Satisfaction with Life	Psycho-pathology
Reflective Functioning	0.183*	0.189*	0.062	−0.061	0.095
Integration	0.158	0.245**	0.027	−0.018	0.090
Complexity	0.150	0.194*	0.055	−0.003	0.014
Negative Affect	0.116	0.062	−0.125	−0.240**	0.155

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

young adults' coping strategy use (i.e., positive coping and support seeking), whereas narrative content tended to be more strongly associated with their life satisfaction and psychopathology.

Declining levels of reflective functioning and negative affective content over time in this sample differed from previous studies with typically developing young adult populations, which suggest that narratives become increasingly sophisticated across adolescence and continue to advance in young adulthood, albeit at a slower pace (e.g., reflective functioning: [Chen et al., 2012](#)). Other narrative features, such as integration, complexity, and positive affective content, showed surprising stability over time. Together, these findings suggest that narrative features among young adults who have aged out of the foster care system seem to follow a unique trajectory compared to other populations. Combined with evidence that most of the estimates for wave 1 narrative features did not reach levels reflective of well developed and robust narratives, these findings suggest that young adults who have aged out of foster care may be at risk for disrupted or blunted narrative development.

Young people transition from foster care to adulthood with limited resources and unique stressors (e.g., heightened expectations for independence, transportation problems, histories of trauma and loss; [Häggman-Laitila et al., 2018](#)) that compound age-normative challenges of emerging adulthood (e.g., identity exploration, establishing supportive relationships; [Arnett et al., 2014](#)). At the same time, young people experience major disconnections from their social support networks after aging out ([Bendeck & Moore, 2024](#)). Amidst heightened stress, disrupted social support, and self-reliant identities ([Samuels & Pryce, 2008](#)), opportunities for the kinds of interpersonal exchanges that would promote positive narrative and identity development, as well as their limited sense of security within which to share their stories ([Steenbakkers et al., 2016](#)), may have contributed to the narrative vulnerabilities seen here.

Young adults' experiences of CEA and placement disruptions while in the foster system predicted their later expressions of narrative content after aging out of care. The contribution CEA to youth's negative affective content aligns with previous research suggesting that young adults with histories of CEA may utilize rumination as a coping strategy ([Domke et al., 2023](#)), which includes focusing on feelings and problems in a negative fashion ([Nolen-Hoeksema et al., 2008](#)), as well as with research showing that individuals with histories of interpersonal trauma express elevated emotional tone in their narratives ([Freer et al., 2010](#)). Emerging adults who have aged out of foster care and who have experienced CEA may be at risk of focusing on the negative aspects of their experiences following their transition out of care. Although negative affect expression declined on average across emerging adulthood in this

sample, young adults with histories of CEA started with higher levels of negative affect, which may have taken longer to reach adaptive levels in ways that placed these individuals at risk for mental health difficulties ([McAdams et al., 2001](#)).

Significant predictions from placement disruptions to reduced capacities for narrative integration and increased negative affective content suggest that young adults who experienced more foster care placements struggled to narrate their experiences with an appropriate balance of emotional and factual information, expressing a preponderance of content focused on negative emotions, such feelings of loss, anger, or sadness. Placement disruptions not only deprive individuals of consistent nurturing relationships that support healthy narrative development ([Fivush et al., 2008](#)) and mitigate the negative effects of foster care ([Rayburn et al., 2018](#)), but they also increase the likelihood of relationship loss, particularly through sibling separation ([Font & Kim, 2022](#)). Sibling relationships take on special significance for youth in foster care amidst parental separation ([Herrick & Piccus, 2005](#)), and the proportion of time spent with one or more siblings while in foster care has been related to positive narrative development ([Richardson & Yates, 2014](#)). Without stable caregiving and sibling relationships, individuals in foster care may lack opportunities to explore and cope by sharing their life narratives with close others ([McAdams & McLean, 2013](#)).

Features of emerging adults' narratives about their experiences in foster care were significantly correlated with both concurrent and prospective coping, satisfaction with life, and psychopathology. Overall, narrative process features were more consistently associated with young adults' concurrent and long-term coping, whereas narrative content features were more closely related to satisfaction with life, and psychopathology. All three narrative process features (i.e., reflective functioning, integration, and complexity) were correlated with more positive coping, and narrative integration was also positively related to support seeking at wave 1. Interestingly, over time, narrative processes also showed significant relations with support seeking. Prior work suggests that reflective functioning may be associated with more active coping strategies ([Gur et al., 2023](#)) and less negative coping through rumination ([Mitchell et al., 2020](#)). Indeed, capacities to reflect upon their foster care experiences in an integrated and complex manner may render emerging adults better equipped to appropriately share their lived experiences in ways that enhance (rather than overwhelm) social support networks. Likewise, [Joseph and colleagues \(2012\)](#) suggest that the ability to balance intellectual and affective material when processing traumatic life events (i.e., integration) undergirds post-traumatic growth (i.e., positive changes following traumatic experiences due to shifts in perspective or finding benefit from the experience). That said, it is important to note that identity processes may mediate or modify relations between

narrative features and adjustment. For example, young people with less prominent “self-reliant” identities (Samuels & Pryce, 2008) may be more willing to engage social support networks that provide opportunities to develop narrative features that facilitate positive adjustment. Finally, the absence of significant relations between emerging adults’ narrative process features and both short- and longer-term psychopathology indicators was surprising given prior work examining process features in narratives about important life events as related to mental health outcomes in non-fostered populations (McLean et al., 2010).

Narrative content (i.e., negative affect) showed expected connections with young adults’ mental health symptomatology (i.e., satisfaction with life and psychopathology) in ways that mirror prior narrative studies with typical (Frost, 2013), clinical (Alpert et al., 2020), and trauma-exposed (Jaeger et al., 2014) samples. These findings highlight the significance of narrative content as a marker of mental health adjustment in diverse populations, including among young adults aging out of foster care. In particular, consistent connections between negative affective content and poorer life satisfaction within and over time aligns with prior research showing connections between the emotional tone of life narratives and mental health outcomes, including satisfaction with life (McAdams et al., 2001). Taken together, these findings suggest that narrative processing among emerging adults who have aged out of foster care reflects how they approach challenges (i.e., coping), while their narrative content more closely captures the effectiveness of their coping with regard to mental health indicators.

7.1. Strengths & Limitations

This exploration of young adults’ narratives about their experiences in foster care drew on a large sample of emerging adults who had aged out of foster care and completed assessments ~ 1.5, 2.5, 4, and 5 years following their exit from the foster care system. Notwithstanding the obtained patterns suggesting disrupted narrative development in this population as a function of their maltreatment and child welfare experiences, as well as evidence of the adaptive costs associated with these disruptions, several limitations both qualify these findings and point to areas warranting consideration in future research. First, the largely descriptive nature of this exploratory study using data-driven methods necessitates future replication efforts. Second, and relatedly, the largely correlative nature of the current research design constrained causal inferences. An analysis using a cross-lagged or experimental design (e.g., narrative-focused intervention) would deepen our understanding of the likely bi-directional relations between emerging adults’ narrative processing and adjustment. Third, the current study focused on young adults’ narratives across the first 5 years of emerging adulthood. Variations in narrative development may emerge later in time for this population, as young adults who have aged out of foster care move through and beyond immediate stressors associated with their exit from care (e.g., housing, education, health, parenting). Fourth, our evaluation of participants’ child welfare histories was not exhaustive. Other child welfare features may influence narrative formation, including perceptions and experiences of transitioning out of foster care (Tyrell & Yates, 2018), racial or cultural (mis)match between young people and their caregivers (Anderson & Linares, 2012), and changes in schools or neighborhoods as a result of out-of-home placement (Fawley-King et al., 2017). Fifth, the current sample was recruited from 2009 to 2011. As a result, these young adults’ experiences may not fully represent those of young people aging out foster care today. Data from the California Youth Transitions to Adulthood Study (Courtney et al., 2020) suggest that the demographics, educational attainment, and placement disruptions in this sample are similar to contemporary samples of young people aging out of foster care. However, because California introduced Extended Foster Care in 2012, about 50% of young people today age out of foster care closer to the age of 21 rather than 18 (Courtney et al., 2018), which may have implications for their narrative development and/or their multi-domain adaptation. Finally, future studies should explore

additional narrative features, such as agency or stigma, as well as more nuanced elements of features examined here. For example, future studies could examine reflective functioning processes with regard to positive self-event connections versus negative self-event connections (Merrill et al., 2016).

7.2. Implications

This study illustrates the power of emerging adults’ life narratives to reflect and shape their experiences in the context of foster care and beyond. Our focus on young adults who aged out of foster care not only adds to the narrative literature on traumatic experiences, particularly as understood over time, but also expands this body of research by considering a population that has been largely neglected in prior narrative studies. This investigation lays the groundwork for future questions that should be asked about young people’s meaning making in the wake of foster care (e.g., how does sibling separation influence meaning making across emerging adulthood?). Indeed, we hope this work highlights the need to listen to the life stories of people who have aged out of foster care and provide them with opportunities to exchange and reflect on their experiences in ways that can promote their positive adaptation.

Young adults who age out of the foster care system may be at heightened risk for stalled or worsening narrative development as they transition out of care. These narrative vulnerabilities may reflect heightened experiences of stress and/or disruptions and deficits in social support that are associated with aging out. The current findings highlight the dual needs for stress mitigation and augmented resources to support young people as they transition from foster care to adulthood. Importantly, we also encourage efforts to promote emotional security and relational stability for all individuals in foster care as soon as they enter care given evidence that their childhood experiences may set them on a path toward narrative vulnerability at or before the time of their exit from care. Narrative interventions with individuals who have a history of foster care, particularly those with histories of CEA and/or disrupted placements, may support their capacities to process their difficult life experiences and, by extension, their multi-domain adjustment in foster care and beyond.

Declaration of competing interest

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Data availability

Data will be made available on request.

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