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Examining the Lives of Navajo Native American Teenage Mothers in Context: A 12- to 15-Year Follow-Up

*In 1992 and 1995, data were collected from 29 Navajo, reservation-residing teenage mothers. In 2007, follow-up data from 69% (*n = 20) *of the original sample were collected. Intensive interviews, grounded in ecological systems theory (U. Bronfenbrenner, 1989), allowed for contextual examination of the women's developmental trajectories. Significant educational accomplishments and a strong work ethic (i.e., individual level) exemplified the majority of respondents. Relationships with families of origin and intimate partners (i.e., microsystems) and connections between these (i.e., mesosystems) promoted* and *challenged participants' optimal development and were significantly influenced by macrosystem factors (e.g., economic constraints, physical isolation).*
Implications for service provision and continued research are discussed.

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The purpose of this investigation was to examine the developmental trajectories of a unique and understudied population of teenage parenting women, namely, Navajo Native Americans, across an extended period of time. Grounded in ecological systems theory (EST; Bronfenbrenner, 1989), we explored factors embedded at the individual level and within the micro-, meso-, and macrosystems that were significant for shaping life course developmental outcomes.

EST presents human development as a reciprocal and lifelong process of interaction between person and environment. Accordingly, individuals are embedded within multifaceted and multilayered, hierarchically organized social systems. Present circumstances cannot be fully understood without careful observation of the entire context within which an individual is embedded, including historical events and situations, social relationships, and environmental factors (e.g., physical environment, culture, subculture). Moreover, Bronfenbrenner (1989) emphasized the dimension of *time* because (a) future developmental alternatives and outcomes are partially determined by present situations and (b) present situations reflect the

unfolding of historical events and experience. Referring to the existing literature, several factors at the individual, micro-, meso-, and macrosystems were identified as particularly significant for examining developmental outcomes of teenage mothers, including educational achievement, economic stability, and number of children (at the individual level); interactions with and between significant support providers (at the micro- and mesosystem level); and the broader cultural context (at the macrosystem level). The theoretical thrust of this investigation provides a holistic and multidimensional perspective from which to examine adult developmental outcomes among Navajo teenage mothers while simultaneously allowing for examination of specific factors (e.g., educational attainment, intimate relationship stability) considered markers of adult status (Oxford et al., 2005).

Educational Achievement/Earning Potential (Individual Level)

Educational achievement among teenage mothers is frequently assessed because it is linked to well-being and lifetime earning potential (Kane & Rouse, 1995). According to Lerner (1995), 45% of teenage mothers (and 73% of *unmarried* teen mothers) receive welfare within 4 years of giving birth, with an estimated annual cost to taxpayers of 9 billion dollars (Hoffman, 2006). Teenage childbearing women experience higher rates of dropping out (Maynard, 1997) and lower rates of college enrollment (Levine & Painter, 2003) than their nonadolescent childbearing peers. However, great variability exists. For instance, 25% of teenage mothers who drop out eventually return to high school to earn a diploma (Pillow, 2004), and, in a 15-year longitudinal study, Rich and Kim (1999) found that more than one fifth of the former teenage mothers in their sample had completed one or more years of college. Moreover, young mothers' academic achievement is increasingly linked to *preexisting* contextual factors (e.g., family socioeconomic status, privation, school inadequacy) rather than parenting status, per se (Mollborn, 2007; SmithBattle, 2007b; Woodward, Fergusson, & Horwood, 2001). Thus, from an ecological perspective, teenage mothers' educational outcomes must be situated within a broader social and cultural environment.

Social Support: Families of Origin and Male Partners (Microsystems)

Interpersonal relationships and family dynamics play a central role in young mothers' short- and long-term well-being (Kalil, Ziol-Guest, & Coley, 2005). Maternal grandmothers, in particular, are prominent figures in young mothers' support systems (Bunting & McAuley, 2004). In addition, grandmothers are key support providers at multiple points in time (Krishnakumar & Black, 2003), and their assistance is linked to enhanced educational, financial, psychological, and parenting outcomes (Chase-Lansdale, Gordon, Coley, Wakschlag, & Brooks-Gunn, 1999). But social support can also be a source of strain (Nitz, Ketterlinus, & Brandt, 1995). SmithBattle (2006) and Apfel and Seitz (1996) described significant heterogeneity in teenage mothers' support systems, with implications for their adaptation to maternity. Furthermore, in a longitudinal study, maternal grandmothers were the greatest sources of both support and conflict through time (Voight, Hans, & Bernstein, 1996).

Male partners frequently also comprise the support systems of adolescent mothers, particularly during the first year postpartum. Nonresident biological fathers tend to "package" their assistance—those who provide monetary support also tend to visit, provide child care, and participate in parenting decisions (Greene & Moore, 2000). Although partner support tends to decrease through time (Rains, Davies, & McKinnon, 1998; Roye & Balk, 1996), variability is evident and often linked to age (with younger partners providing less assistance) and ethnicity. Generally, Latinas are more likely to be married to or romantically involved with the fathers of their children, and Black teen mothers tend to report receiving less support from partners than either their Latina or Caucasian peers (Moore, Florsheim, & Butner, 2007; Wiemann, Agurcia, Rickert, Berenson, & Volk, 2006).

However, family of origin dynamics also play a significant role in male partners' continued support, thereby highlighting mesosystem interactions. In a longitudinal study, Kalil et al. (2005) identified three distinct patterns of partner involvement: high involvement through time, low involvement through time, and high involvement at Time 1 followed by low involvement at Time 2. Decreasing father involvement

(i.e., high-low pattern) was related to support provided by their children's maternal grandmothers; sustained low involvement (i.e., low-low pattern) was linked to teen mothers' coresidence with maternal grandmothers. Likewise, in a 3-year study involving 218 adolescent minority mothers, Gee and Rhodes (2003) found that lack of support from maternal grandmothers predicted male partner relationship *continuity*. The authors speculated that adolescent mothers' male partners play a "compensatory support role in the absence of maternal support," (p. 379). Conversely, maternal grandmothers may act as gatekeepers and actively limit support from male partners. Intimate relationships between young mothers and their male partners are complex and multidimensional; relationship continuity and support provision are intricately connected to a host of personal, relational, and cultural variables. Still, much is yet to be learned. Continued longitudinal work, over extended periods of time, is critical for enhanced understanding of teen mother-male partner relational dynamics and, by extension, mothers' developmental trajectories.

Environmental Context (Macrosystem)

Burton (1990) described teenage childbearing among 20 low-income, multigeneration Black families as an "alternative life course strategy" created in response to significant socioenvironmental constraints (e.g., poverty, substandard education). Her study highlighted the central role of context and culture in shaping responses to, and outcomes of, teenage maternity. It is becoming increasingly clear that the social, physical, economic, and cultural contexts in which young women become pregnant, give birth, and raise their children may have a more significant impact on their long-term well-being than maternal age, per se (Fessler, 2003; Geronimus, 2004; Turley, 2003). Still, despite recognition of the heterogeneity of the teenage parenting population and the diversity of contexts within which young women raise children, investigations are overwhelmingly represented by Black and Caucasian youth (and to a lesser extent by Latinas), with the majority residing in urban environments. Attention to a broader range of ethnically, culturally, and geographically diverse adolescent mothers is warranted. To date, no studies exist describing teenage parenting among contemporary Native Americans other than those published by the

author a decade ago. Investigations of *adult outcomes* of Native American teenage mothers are nonexistent in the literature. The current investigation was intended to address this oversight by exploring the developmental trajectories of reservation-residing Navajo Native American women who first gave birth during adolescence. Attention to the larger physical and cultural environment of the Navajo Reservation is inherent to an ecological perspective.

The Navajo Reservation. The Navajo Reservation encompasses more than 26,000 square miles and extends across three states (i.e., Arizona, Utah, New Mexico; Bureau of Indian Affairs [BIA], 2003). In this rural landscape, population centers include clusters of housing around schools, hospitals, trading posts, or chapter houses. The Navajo trace decent through the mother's line (i.e., matrilineal), and traditional residence was with the wife's family after marriage. Extended family and the maternal role were highly valued—as evident in sacred ceremonies and prayers that exalt female deities (e.g., Changing Woman) and procreation (e.g., the Kinaalda ceremony celebrating womanhood; Shepardson, 1982). Historically, income was acquired through livestock, jewelry, and craft sales (Lindig, 1993). However, social and economic changes have resulted in dramatic transformations. Despite its natural geographical beauty (e.g., rock cliffs, expansive mesas, red siltstone), alcoholism, poverty, and educational underachievement plague reservation residents. In 1999, 46% of the reservation's 165,600 residents were unemployed; 58% lived in poverty (BIA). Educationally, the situation is bleak, with fewer than 60% of reservation ninth graders graduating high school (Willeto, 1999). Furthermore, although alcohol sales are illegal on the Navajo Reservation, rates of alcoholism are six times that of national statistics (U.S. Department of Health and Human Services [USDHHS], 2002). Communities characterized by poverty, educational deficits, and elevated substance abuse incur significant challenges to optimal well-being (Szlemko, Wood, & Thurman, 2006). It was with this ecological context in mind that my original study (Time 1) was conceived. At that time (1992 and 1995), no literature existed on contemporary Navajo teen mothers, despite rates of childbearing triple that of national statistics (see USDHHS, Indian Health Service, 1991).

Summary

Combining EST with the available literature revealed several factors at the individual, interpersonal, and broader environmental levels worthy of investigation. These factors formed the basis of our research questions. At the individual level, questions addressed the women's educational goals during adolescence and the extent to which these goals were achieved; personal, social, and environmental factors that promoted and challenged educational goal achievement; and the extent to which educational attainment translated into stable and living wage employment. To address the micro- and mesosystems, questions centered on support network composition and types of support received during adolescence and adulthood, including the influence on development of linkages across key relationships. At the macrolevel, questions focused on the extent to which (a) developmental trajectories were influenced by Navajo Native American heritage and (b) environmental constraints (e.g., poverty, physical isolation) influenced educational attainment, employment, and relationships with network members.

METHOD

Procedures

Time 1. In 1992, survey and interview data were collected from 21 Navajo adolescent mothers living in a small reservation community. In 1995, the primary investigator (PI) returned to the Navajo Reservation and collected survey and interview data from eight additional adolescent mothers residing in an adjacent community. With the help of a Navajo assistant, participants were recruited through high schools, through an alternative educational program in each community, and by word of mouth. All data were collected by the PI in a convenient, private location (e.g., participant's home, a classroom). Prior to data collection, parents (or guardians) completed a parental consent form; participants completed a youth assent form. Participants were assigned identification (ID) numbers, and a table linking names with ID numbers was created and maintained solely by the PI. Because of sample size and the absence of prior studies on the target population, the investigations were necessarily descriptive, focusing on social support, identity, and challenges of teenage parenting on the

Navajo Reservation. The PI took extensive field notes and maintained an audit trail throughout the data collection process, which lasted approximately 3 weeks in both 1992 and 1995. These data formed the basis of the PI's master's thesis (1992) and doctoral dissertation (1996). All participants agreed to be contacted in the future for a follow-up interview. For purposes of the current investigation, 1992 and 1995 data were combined and analyzed together. They are collectively referred to as *Time 1*.

Time 2. In 2007, the PI returned to the Navajo Reservation to collect follow-up data. Six months prior to arrival, the Director of the Career, Occupational, Parenting, and Education Center located in one of the target communities was hired to assist in recruitment. Participants were located through nuclear and extended family, places of employment, and word of mouth. Twenty-two of the original 29 women were located. Two declined to participate for a total sample size of 20 (69% of the original sample). Interviews were arranged between the PI and each participant in a place that was private and conveniently located (e.g., participant's home, conference room). After the goals and methods were explained, each participant read and signed a consent form (a copy was given to each) and was assigned an ID number. Participants completed several self-report surveys (only one is included here) and then engaged in an in-depth, audio-recorded interview with the PI. Interviews were semistructured and designed to explore personal challenges and achievements, interpersonal relationships, and cultural and contextual influences on development since Time 1. Data collection lasted about 3 hr with each participant (range = 1.5 – 3.5 hr) and occurred over a 3-week period of time. Participants were compensated.

An audit trail, in addition to triangulation and member checks, helped ensure trustworthiness (Lincoln & Guba, 1985). Triangulation of method was achieved through the mixed-method approach; when interview and survey data conflicted (e.g., indication of abuse on the life events scale but not mentioned in the interview), discrepancies were addressed and clarification obtained. The member check was also used. Prior to each interview, the PI read original transcripts from Time 1. At Time 2, each participant was asked to describe issues (e.g., social support, residence) surrounding her adolescent transition to maternity. In all cases, the original transcripts

(Time 1) corresponded with participants' Time 2 descriptions. Also, issues discussed in one interview (e.g., bootlegging) were broached anonymously in subsequent interviews to obtain multiple perspectives. Finally, during the interviews, the PI interpreted participants' statements and requested further clarification or confirmation of understanding.

Participants

Twenty women comprised the final sample. At Time 1, participants ranged in age from 16 to 19 years ($M = 17.4$ years). Most ($n = 16$) had only one child, although one participant had a biological child and two stepchildren (aged 3 and 6 years), two participants had two biological children, and another was pregnant with her second child. The children averaged 10.4 months of age (range = 1 month to 3.8 years). Most participants ($n = 17$; 85%) were enrolled in high school (mean years completed = 10.1); five had dropped out after having their babies (range = 1 month to 1.5 years) before returning to school. Three others had dropped out and not returned. Consistent with the literature (see Miranne & Young, 2002), the babies' fathers were about 4 years older than the youth (21.1 vs. 17.4 years; range = 17 – 36 years). In 2007, participants ranged in age from 28 to 34 years ($M = 31.5$ years). Collectively, they had 81 children ($M = 4.0$; range = $1 – 9$) not including current pregnancies ($n = 3$). Children ranged in age from 9 months to 17 years ($M = 9.2$ years), and three had children of their own (i.e., three participants were grandmothers). Most ($n = 15$; 75%) were either married or cohabiting with a male partner. (See Table 1 for complete demographic details.)

Data Analysis

Interview data were transcribed verbatim and analyzed using thematic analysis (Aronson, 1994). This process began by thoroughly reading and then rereading all interviews (i.e., protocols) and then extracting shared patterns of experience or themes. Next, themes were expounded by adding all information from the transcribed interviews that relates to already classified patterns. Finally, related patterns were combined and catalogued into subthemes. Each transcript was individually coded by the PI and at least one research assistant (RA). Data analysis, including coding and identifying emergent themes and subthemes, was discussed in semiweekly meetings between the PI and three RAs. When coding discrepancies arose, transcripts were reexamined until coding agreement was reached.

At both Times 1 and 2, participants completed the Norbeck Social Support Questionnaire (NSSQ; Norbeck, Lindsey, & Carrieri, 1982). In this survey, respondents identify up to six network members and then answer seven questions about each (e.g., "How much does this person make you feel liked or loved?"). Response choices range from 1 (*not at all*) to 5 (*a great deal*). Total support is obtained by summing all items for each network member and dividing by the number of network members (total scores range from 1 to 35). Subscale scores (i.e., emotional support = four questions, informational support = one question, practical support = two questions) may also be obtained. Participants also report frequency of contact and relationship length for each network member. Functional (e.g., emotional support) and property (i.e., contact, relationship length) items have high test-retest reliability (.85 – .92).

Comparative Analyses

Statistical analyses, using Time 1 data, allowed for comparisons on key demographic variables (e.g., education, number of children) between participants and their peers ($n = 9$) who could not be located at Time 2. Only one difference emerged. Women who could not be located at Time 2 were more likely than participants to be residing with a male partner at Time 1, $t(27) = -1.80$, $p = .06$. Also, although the two groups did not differ in terms of educational attainment at Time 1, only 15% ($n = 3$ of 20) of participants interviewed at both time periods, compared to 33% ($n = 3$ of 9) of their peers, had dropped out of school at Time 1.

RESULTS

Corresponding to EST, results of analysis of education and employment data (individual level) are presented first, followed by data corresponding to social support (micro- and mesosystems) and then the larger reservation context (macrosystem). All names are pseudonyms.

Table 1. *Demographic Data: Times 1 and 2*

Variables	Time 1[a] ($n = 20$)	Time 2 ($n = 20$)
Age		
Mean (*SD*)	17.4 (0.93)	31.5 (1.82)
Range	16 – 19	28 – 34
Number of children (*n*)	22	81
Mean (per participant) (*SD*)	1.2 (0.37)	4.0 (1.82)
Range	1 – 2	1 – 9
Currently pregnant (*n*)	1	3
Children's ages		
Mean (*SD*)	10.4 months (0.50)	9.2 years (2.32)
Range	1 month to 3.8 years	9 months to 17 years
Education		
Mean years completed (*SD*)	10.5 (0.82)	13.9 (1.82)
Years completed (range)	9 – 12	10 – 16
Dropped out (*n*)	3	4
Dropped out/returned (*n*)	5	—
Received GED (*n*)	—	2
Marital status		
Married/partnered	17	15
Single	2	2
Divorced/separated	1	2
Widowed	—	1
Length current partnership		
Mean (*SD*) (years)	1.9 (1.2)	13.4 (7.68)
Range	10 months to 5 years	2 months to 17 years
Children's fathers' ages		
Mean (*SD*) (years)	21.1 (1.3)	
Range (years)	17 – 36	
Residence (*n*)		
Husband/partner	1	13
Partner and his family	3	1
Family of origin	10	3
Family of origin and partner	5	1
Grandparents and partner	1	—
Alone with children	—	2
Employed (*n*)		
Self	5	13
Partner	12	9
Main sources of income[b]		
Family of origin	10	—
Own employment	2	15
Partner	9	5
Public assistance	6	3
Annual family income (*n*)		
<$10,000	10	5
$10,000 – $19,999	5	—
$20,000 – $29,999	2	6
$30,000 – $39,999	—	6
$40,000 – $49,999	—	—
>$50,000	—	3
Unknown	3	—

[a]Reflects only those participants located and interviewed at both Times 1 and 2.

[b]Participants could select more than one source of income.

Key Developmental Shifts in Education and Employment

As youth, meeting the competing demands of school and motherhood (e.g., finding time to study, missing school to care for a child, limited income) presented significant challenges for many. To illustrate, Josetta commented, "When I do homework she [daughter] gets in my way and then like during school it's hard for me to find a sitter. And sometimes I have to miss school just to take care of her." Still, several indicated that the births of their children resulted in a renewed commitment to school. For instance, Pasilla explained, "If I were to quit [school], I know that someday my child would ask me why, and I just don't know what I would say." Yvonne similarly stated, "I had to go to school. I was gonna have a baby and I needed a future for me and my family." In addition to attending school, five youth were also employed, although primary sources of income included family, partners, and public assistance. Still, money remained a significant source of stress as illustrated by Karen who described her *greatest* concern as, "Money—money for diapers and food." The scope of deprivation became clear when asked about local economic opportunities, to which Karen replied, "There aren't any." Furthermore, although many indicated that their male partners provided material assistance, most ($n = 11$) male partners were unemployed; among partners who did work, employment was sporadic and unreliable (e.g., collecting firewood). In planning future prospects for themselves and their children, seven of the youth planned to leave the reservation in pursuit of academic and employment opportunities in urban areas (e.g., Albuquerque, Phoenix) following high school graduation. The extent to which they would be able to do so was tenuous, given the myriad challenges faced by these young women.

The adult women's educational attainment exceeded expectations (mean years education = 13.9; range = 10 – 16 years). Eight had completed 2 years of college, two had obtained a nursing degree, one was starting college, and another had an MS in bilingual/multicultural education and had entered a doctoral program. Their educational achievements were a source of pride, although the advancements had not been easily attained. Given physical isolation of the reservation, and severely limited Internet access, students had to travel to access college courses via the Internet at sites across the reservation or attend traditional classes in other sites—often many miles from home. In contrast, some had been able to attend college in nonreservation areas. This was not easily accomplished either, however, as it entailed moving hundreds of miles, adapting to an urban environment, working, and maintaining adequate academic progress. If possible, children were left on the reservation with family. But this was not an option for all—particularly those lacking an extensive support system. Melissa's situation is illustrative. Lacking family support, she remained with a controlling partner who "allowed" her to attend nursing school off the reservation but would not let her stay overnight. She explained, "The last year of school it got really bad. I had to come back every night after my 12 hour shift, spend the night at home, get up at 4:30 in the morning and go back." It took nearly 10 years, but she eventually received a degree. On the other hand, despite the desire to earn a college degree, such did not materialize for all. Erica abandoned higher education after a series of abusive relationships and the births of six children; the need for immediate income took precedence over long-term educational goals. Pasilla's educational goals were likewise derailed when her daughter was born with severe medical problems requiring 24-hr supervision. The diversity of the women's developmental experiences, particularly in relation to education attainment, is evident in the trajectories of five others who exhibited little inclination toward academic advancement—two of whom never received a high school diploma or General Equivalency Degree certificate.

Given associations between number of children born to teenage mothers and academic achievement (see Manlove, Mariner, & Romano Papillo, 2000), we statistically compared women with four or more children ($n = 10$) to those with three or fewer ($n = 10$). Educational achievement was indistinguishable between them.

As adults, most participants ($n = 13$) were employed full-time (two in urban areas). However, their academic achievements did not translate into living wage or even stable reservation employment as most worked in minimum wage retail or food service positions. Carli's situation is illustrative. After obtaining an accounting degree, she returned to the reservation—to be in a familiar environment, to be with family, and to resume care of her daughter. Yet, she was unable to find work, explaining, "I have my education, and my degrees, you know? But they still won't

hire me." At the time of the interview, Carli was unemployed and living with her family of origin. Her situation was not unusual. Participants frequently commented, "There really are no jobs here" or "On the reservation, if you want a job, you have to be related to or close friends with someone." Almost without exception, they explained that one had to leave the reservation to have a promising career with room for advancement. Still, many were opposed to leaving, stating, "My kids are here" or "My family is here." Thus, despite its economic deprivations, the Navajo Reservation was still, as noted by Carli, "… home—this is always home." As youth, the women described lofty educational goals; the extent to which these would be realized was unclear at Time 1 because of multilayered personal, social, and environmental challenges. Although some received financial and childrearing help from key support providers, the impoverished conditions of the Navajo Reservation limited network members' ability to assist. It is a testament to the participants' fortitude that many overcame such challenges and achieved their educational goals by Time 2. Following the births of their babies, many appeared to make a significant developmental shift—recognizing that their children's future prospects were dependent on personal choices to maintain academic progress. Despite personal growth and maturity evident among many between Times 1 and 2, the reservation itself changed little—poverty continued to plague reservation residents and employment options remained scarce. Thus, despite personal sacrifices to obtain educational goals, such achievements failed to translate into monetary rewards for those who remained on, or returned to, the reservation.

Family of Origin and Male Partner Influences on Developmental Trajectories

Analyses of NSSQ data revealed that families of origin and especially female relatives (i.e., mothers, grandmothers, sisters, aunts) were key support providers during both adolescence and adulthood. However, not all the women were embedded within supportive family environments; both Melissa and Kari were kicked out of their homes after becoming pregnant, forcing them into early, committed relationships with male partners. Patterns of relationships with families of origin (either supportive or distant and conflicted) remained much the same throughout

adolescence and into adulthood. Furthermore, because of the continuously dire economic situation of most reservation families, assistance consisted largely of emotional and practical (e.g., child care) rather than financial support.

Relationships with intimate partners were surprisingly consistent as well. As youth, most ($n = 17$) considered themselves "married" or in a marriage-like relationship; 15 reported serious, long-term relationships (range = 10 months to 5 years) with partners *prior* to becoming pregnant. However, problems with alcohol, male partners' preference to be with friends, and their reluctance to offer financial support were eroding many ($n = 8$) of those youthful relationships. About her partner, Karen noted, "He takes drinking and friends over his daughter and me." Similarly, Yvonne described recent problems because:

> He [partner] started drinking and stuff … It's just too much on him—being a father. I think it got to him. It seems like he can't find a job here—he has no money for us and it just built up on him and he just started drinking.

Four participants also spontaneously mentioned being physically assaulted by male partners.

As adults, many ($n = 8$) of these women were still with, or had only recently (within the past 6 months) separated from ($n = 3$), the *men who had fathered their children during adolescence*. In fact, the intimate relationships of eight (40%) had lasted 14 or more years—relationships that began during early adolescence. Data analysis revealed two prominent patterns (i.e., domestic violence, alcoholism) in the women's adult intimate relationships—patterns that began for many during adolescence.

Domestic violence characterized the intimate relationships of 11 women (55%). For some, the violence was severe and sustained over many years. Melissa's 12-year relationship, for instance, was tainted by a combination of physical, verbal, and sexual abuse. Likewise, Kari's 11-year relationship was similarly violent. She described the abuse as, "… constant—every single day. Every day I was being physically abused, verbally abused … [and] I had nowhere to go so I stayed there and stuck it out." Moreover, several ($n = 5$) mentioned that their children also experienced physical abuse by male partners, and some expressed concern about the effects on their children from witnessing violence. Erica

was particularly worried about her oldest children, noting, "They have seen a lot of domestic violence. They have seen a lot of bad stuff." With regard to services available for victims of intimate partner violence (IPV), Carli commented, "There are really no kinds of services available, especially for domestic violence." And when asked about a local shelter mentioned by others, she said:

> Yeah, they built a shelter a few years ago, it's not even open. So there's really nowhere. And the police department around here is like no help at all. You're lucky if you call them and they come within the hour.

Janicia concurred, noting that services were limited and rarely used because "People are ashamed. [They're afraid] people would say something. There's a lot of gossip around here."

Similar to reports at Time 1, adult intimate relationships were frequently also strained by male partners' limited financial support. Six (40%) women reported that their partners did not work; nine others had *ended* relationships because of their partners' meager financial contributions. Tanisha, for example, ended a 10-year relationship with the father of her children because of his pervasive unemployment, stating, "He signed the birth certificates—that's it. I did everything else. He never worked. Still doesn't." This pattern resonated with many. Karen ended two long-term relationships because the men chose to be "out with friends" rather than work. And Danielle's 7-year relationship ended because her partner "… was more geared toward dancing, friends, [and] partying." However, just as some stayed with abusive partners, some also stayed with men who failed them financially. Josetta, for instance, described becoming pregnant "on purpose" in order to leave her parents' home; 14 years later, she remained with her husband, despite his alcoholism and inconsistent employment. She believed her situation was common, explaining, "People I know, the girls my age, they are all with a man right now that isn't even working. And their husbands are just drinking." It was for these reasons (e.g., alcoholism, unemployment) that Carli chose to be single. She said, "All the men I've been with still have the Peter Pan Syndrome—they don't want to grow up—they drink too much, they don't work, and they're just not emotionally available." Furthermore, it is important to point out that 67%

of employed partners worked *off* the reservation, sometimes hundreds of miles away and thus, despite their financial contributions, were physically removed from their homes and families much of the time.

Developmentally, sources and types of support changed little from adolescence to adulthood—those reporting significant family support at Time 1 reported the same during adulthood. However, those with conflicted networks or unstable support at Time 1 tended to remain in unsatisfying, even extremely violent, intimate relationships throughout adolescence and adulthood. Mesosystem influences on the women's developmental trajectories were thus evident. Macrolevel reservation situations, particularly impoverishment and limited employment opportunities, were *directly* related to the women's microsystem relationships—with both kin (i.e., type of support network members were able to provide) and intimate partners (i.e., persistent unemployment *or* their physical removal of men from the reservation in order to provide financially for their families).

Navajo Culture and Reservation Context: Influences on Development

Only four of the youth reported active involvement in traditional Navajo ceremonies and culture. Kari was one of the few. She explained, "When I was pregnant we had the Blessing Way [ceremony] done on me … and that is something that *every* pregnant woman is supposed to do. They are *supposed* to do that." Still, many other youth ($n = 14$) reported having a rudimentary knowledge of traditional Navajo culture, and nearly all described a desire to learn more about their Native American culture and ancestry. Developmentally, knowledge and traditional behavior could influence Kari's as well as her peers' belief systems and behaviors and potentially also that of their children if such knowledge were passed to future generations.

Given limited knowledge of their cultural roots during adolescence, it was of little surprise to learn that, as adults, most participants ($n = 14$) reported a similarly superficial relationship with traditional Navajo culture. Although many participated in ceremonies, "traditional" culture, per se, had a minimal influence on their developmental trajectories or daily lives. Only one participant, Robyn, described significant developmental influences because of Navajo culture,

belief systems, and lifestyles. She, her husband of 15 years (a Navajo Medicine Man), and their nine children lived in a mobile home without running water or electricity. Because her husband worked in Colorado, she cared for the children and maintained the livestock. She considered her family "very traditional" and was adamant about teaching them the Navajo language and traditional ways (e.g., foods). The family also frequently participated in traditional ceremonies (e.g., Kinaalda, Squaw Dance), many of which were conducted by her husband. In contrast, three others, all with extensive non-reservation experience, were critical of the Navajo culture and, to some extent, attitudes of many reservation-residing Navajos. Karen, for instance, commented, "I respect Navajo ways. But, there are some crazy parts to this Navajo [culture] that I totally disagree with." In her opinion, Navajos often "used" traditional beliefs to "make excuses," particularly with regard to employment. When asked to explain, she stated:

> Here's one I heard every day. 'I was driving to work. I was gonna be on time, but a coyote ran in front of me.' (The coyote is bad luck.) 'And so, I sat there and waited until somebody brought me herbs to erase the bad things.' It's a bunch of bull crap.

Many Navajos, she explained, ignored problems (e.g., alcoholism) because "In Navajo culture, if something is bad, you just let it die out. You just leave it alone—it'll go away." Furthermore, because of the government's restrictions on the growth and expansion of nontribally owned businesses, the reservation's economic horizon was bleak. A vicious cycle of poverty, welfare reliance, hopelessness, and alcoholism controlled the lives of many, perpetuated, she believed, by the tribal government. It was for these reasons that Karen and her children resided in Phoenix. Still, she planned to return to the reservation, to her family roots, following retirement.

DISCUSSION

According to EST (Bronfenbrenner, 1989), two people from the same community, with similar family dynamics and shared cultural heritage and exposed to the same economic challenges and opportunities, are nonetheless *individuals*, with person-specific attitudes, beliefs, and be-

haviors that influence their reaction to and interaction with the social and physical environment. Personal agency, initiative, and perception result in person-specific developmental processes. Nowhere is this tenet of EST more evident than in the developmental trajectories of the 20 Navajo women portrayed here. As a group, there was remarkable heterogeneity in developmental outcomes at the individual (i.e., education/employment) and relational levels, as well as divergent responses to hardship and challenges at the broader environmental level.

First, although all had access to the same opportunities (e.g., Tribal Scholarships) and likewise faced similar challenges (e.g., poverty, early maternity), vast differences in educational attainment were evident. Some—viewing education as a vehicle for a better future—took advantage of the opportunities to overcome barriers, whereas others succumbed to the many challenges they faced and eventually relinquished hopes of educational advancement, and still others lacked interest in or motivation to pursue academics beyond high school. Challenges to academic success identified here (e.g., unreliable child care, transportation, family conflict) parallel those reported by others (e.g., Miranne & Young, 2002; Mollborn, 2007). And although these women averaged more children than Navajo women generally speaking ($M = 4.0$ vs. 3.1; BIA, 2003), many nonetheless achieved significant educational advancements. Some indicated that their children *motivated* them to succeed in school—a finding described by others as well (SmithBattle, 2007a). Collectively, the percentage of participants with one or more years of college experience exceeded that noted by Rich and Kim (1999) in their investigation using data from the National Longitudinal Study of Youth. Moreover, had barriers been alleviated, we speculate that even more would have advanced academically. These data speak to the critical need to reduce barriers to higher education among rural, isolated populations. Distance delivery can offer access to higher education among geographically disenfranchised populations, yet 60% of Navajo households lack phone service (compared to 4% nationally; Madden, 2005), rendering home-based Internet access impossible for most. Furthermore, travel to delivery sites can be problematic, given the size of the Navajo Reservation. Efforts to improve educational access in remote areas are clearly warranted. Policy recommendations include earmarking scholarships for teenage mothers with good

academic standing and providing subsidies to extended families who raise grandchildren while their daughters attend nonreservation institutions if academic progress is maintained.

Second, employment and work ethic variability were also evident. Several women sacrificed the familiarity of the reservation and proximity of family to pursue career advancement while many of their peers maintained menial reservation positions earning meager wages, and still others remained unemployed and welfare dependent. Macrolevel structures (e.g., rural geography, physical isolation, tax disincentives for nontribally owned businesses) impact income-generating options for reservation residents on a daily basis. Economic and physical disenfranchisement of the Navajo Reservation exacerbated difficulties not only at the personal level (i.e., in achieving educational and career goals) but also at the relational level—with economic strain a considerable stressor in the women's intimate relationships. Pervasive unemployment and use of alcohol as a coping mechanism often resulted in the development of destructive intimate partner relationship patterns—patterns that for some began during youth and progressed throughout adulthood. Furthermore, reservation conditions forced some to make very difficult residential choices—whether to remain on the reservation or to seek greater economic, career, and educational opportunities for themselves and their children in urban environments. Choices made because of broad-based contextual conditions significantly impacted these women's long-term developmental outcomes. There are no easy answers to alleviating widespread economic deprivation. The situation is inherently more complex for reservation residents than even the "urban underclass" because of tribal sovereignty (Chen, 2007). Creative, collaborative endeavors between federal, state, and local governments as well as private business owners aimed at expanding reservation-based economic opportunities are vital to effect real change.

Third, the women's relationships with nuclear and extended family, in addition to patterns of relationships with intimates, also differed widely. As in prior studies (Krishnakumar & Black, 2003), maternal grandmothers were key support providers through time; yet, family conflict also *created* stress. Similar findings have been documented elsewhere (Nitz et al., 1995; SmithBattle, 2006). Family conflict, coupled with limited formal resources and options, may have played a key role in the choice of some to remain in destructive intimate relationships. Furthermore, although many of the women had only been in relationships with the men who fathered their children during adolescence, several of their peers experienced a series of intimate partnerships—bearing children with multiple partners—while still others remained single, choosing self-reliance and kin assistance over the unpredictability of male aggression and financial support. That many included male partners on the NSSQ at Time 1 is consistent with prior studies (Greene & Moore, 2000; Kalil et al., 2005); however, the longevity of relationships between participants and their original male partners (i.e., 40%) far exceeded expectations that were based on the available literature (i.e., see Cutrona, Hessling, Bacon, & Russell, 1998; Gee & Rhodes, 2003). Regardless of relationship *length*, dynamics are critically more important for the women's developmental outcomes, and it appears that these women learned, early on, two significant points that framed their developmental trajectories: (a) male partners are unreliable and (b) financial support from kin is inevitably limited. Thus, many developed a pattern of *self-reliance*—realizing that they alone were key to their children's future prospects.

Furthermore, the literature speaks to the prevalence of violence against adolescent and young mothers (Leaman & Gee, 2008; Miranne & Young, 2002); in this regard, these women shared much in common with their non-Native peers. According to a recent review (Navajo Division of Public Safety, 2003), there were 11,086 incidents of domestic violence reported to Navajo Law Enforcement in 2002 alone. Given the study participants' reluctance to report IPV, these statistics may grossly underestimate the severity of the problem. Some believe domestic violence is rooted in years of colonization leading to "institutionalized violence … and the erosion of traditional Navajo values of equality and harmony" (McEachern, Van Winkle, & Steiner, 1998, p. 31). Formal services (i.e., police protection, shelters) for victims of IPV are exceptionally scarce on the Navajo Reservation. Multipronged interventions addressing personal (i.e., self-empowerment), relational (e.g., education, counseling), and structural (i.e., training for service providers, more resources, a combination of traditional and progressive approaches) issues is critical for successfully interrupting the growing cycle of violence on the Navajo Reservation (see Stop the Violence Coalition, 2008).

Finally, only a handful of participants embraced the traditional Navajo culture, with behavioral attempts to maintain the language and traditional lifestyle cross-generationally. As a group, the participants were highly acculturated—a finding consistent with McCloskey's (2007) recent multigenerational study of Navajo women. Although *traditional* Navajo culture appeared to have little impact on the participants' developmental trajectories the social and economic conditions of the reservation impacted the daily lives, belief systems, future hopes, and aspirations of all—as evident in analyses of their developmental trajectories from youth to adulthood. Macrosystem issues, including poverty, unemployment, rampant violence, and acceptance of alcohol as a coping mechanism, particularly among Navajo men, colored the broader Navajo ecology and, by extension, these women's lives through time. Still, despite divergent developmental paths, remarkable resourcefulness and agency were harnessed by many in response to significant relational and ecological challenges. It would be remiss to not acknowledge that such fortitude may be a reflection of their Native American heritage.

Strengths and Limitations

This investigation contributes to the literature on the long-term outcomes of teenage mothers. Few studies have taken a life course approach; fewer still have followed women for more than a decade. The rich, multilayered data presented here provide a window from which to view developmental processes within a holistic framework. Moreover, the sample represents an understudied and overlooked segment of the population—namely, Native American women. To date, no other studies exploring the developmental trajectories of Native American teenage mothers exist. Moreover, few participants ($n = 9$) were lost to attrition. That 69% of the original sample was found and interviewed at Time 2 was surprising, particularly given extensive time between data collection points. In retrospect, however, this also makes sense. According to participants, the reservation was and would always remain "home." Regardless of their individual journeys, they eventually returned to the land of their roots.

Research limitations include, first and foremost, sample size that consisted of only 20 women. Moreover, all were from the same geographic area (i.e., the two target communities). Results must be interpreted with these transferability limitations in mind. Future research, including a larger sample and one more representative of the Navajo Reservation, is warranted, as are studies that include nonteenage parenting, reservation-residing Navajo women for comparative purposes. Finally, data were collected from the women only. Research with multiple data sources (e.g., partners, children) is recommended to provide additional insight into teen mothers' developmental trajectories across multiple social and ecological contexts.

CONCLUSIONS

Teenage mothers often exhibit remarkable resilience and resourcefulness when exposed to less-than-optimal familial and environmental conditions (Burton, 1990; SmithBattle, 2007b). The present data speak to the resilience, personal agency, and initiative of Navajo teenage mothers across the life cycle. These data provide a springboard for continued investigation of factors deemed critical for promoting resilience, including internal strengths, interpersonal skills, external supports, and community resources (Killian, 2004; Rutter, 2006). These data also speak to the necessity of examining "at-risk" teenage parenting populations *developmentally* and with an eye toward identifying within- and between-group commonalities and differences. As young mothers, these women had much in common with their Black, Caucasian, and Latina peers, although they also displayed much within-group variability—variability that became more pronounced through time. Because the teenage birthrate on the Navajo Reservation continues to exceed national statistics (16.9% vs. 12.7%; Joe, 2004), this research also speaks to the necessity of continued longitudinal work aimed at identifying *processes* at the individual, micro-, meso-, and macrolevels that enhance optimal development and lifelong resilience among disenfranchised teenage parenting populations. Research, service, and policy must be cognizant of the many systems within which youthful mothers are embedded, of their synergistic impact on development, and of both within- and between-group similarities and differences.

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