Motherhood as salvation: The experience of young Appalachian mothers

Betsy Dortch Dalton

The University of Tennessee, Knoxville

Research paper submitted for consideration to the annual Research Symposium
Abstract

This study explored the meaning of teenage motherhood to young Appalachian mothers using a phenomenological approach. In-depth interviews with 14 mothers between the ages of 18-22 from the southern central Appalachian region were conducted. Findings indicate that the experience of teenage motherhood can be described in terms of filling a void and the pervasive drug culture. Analysis of these findings indicates that the experience of motherhood is characterized by salvation. The salvation of motherhood is shaped by the emotional chasm it fills, as well as the protective barrier it provides between the mother and the drug culture surrounding her. Implications of these findings might include a need to examine the protective effects of motherhood from negative sociocultural forces among other subcultures. Also, the ubiquitous drug culture that surrounds young people in Appalachia should be taken into consideration when shaping policy and interventions for teenage pregnancy prevention.

*Keywords:* teenage pregnancy, rural Appalachia, adolescent sexuality
Motherhood as salvation: The experience of young Appalachian mothers

After a 14-year decline, teenage birthrates in the United States began to rise again in 2006 and 2007 (Yang & Gaydos, 2010). The phenomenon of teenage pregnancy has serious consequences, not only for teen mothers, but for their children and society as a whole. The statistics are stark: teenage mothers are at greater risk for experiencing complications such as low birth weight and infant death. Eight out of 10 drop out of high school. Without an education or skill set, these mothers have a harder time finding a job, and must depend on families and public assistance for support (Witte, 1997). In fact, an estimated 75 percent of these young women go on welfare within five years of giving birth. The odds are stacked against the children of unwed teenagers as well: 64 percent of these children will live in poverty, compared to 7 percent of children born to married, high school educated women over the age of 20 (March of Dimes, 2010).

In southern Appalachia, the teenage birthrates are telling. According to the Appalachian Regional Commission (ARC, n.d.), the following states make up the Southern, South Central, and Central Appalachian region: Mississippi, Alabama, Georgia, South Carolina, Tennessee, North Carolina, Kentucky, Virginia, and West Virginia. Among these 10 states, all except Virginia rank among the top 16 states for teenage birthrates, with Tennessee at number 6 and Mississippi at number 3 (Guttmacher Institute, 2010). This indicates a reasonably strong regional trend. Through a series of interviews, the researcher hopes to better understand these young women and their situations.

This study seeks to answer the following question: what is the meaning of motherhood to young Appalachian mothers? A better understanding of this phenomenon can potentially help stem the tide of high-risk youth pregnancies and children born into poverty by both informing
adolescent health literacy research and improving communication between young people and parents, educators, and health care providers. These health care providers, public health departments, counselors, educators, and many others can benefit from a better understanding of what pregnancy means to this population of young women. The Centers for Disease Control and Prevention (CDC, 2010) call for evidence-based sex education as a preventative measure; qualitative evidence such as this study produces could provide a different type of evidence to support these measures than what has been used previously. Theoretically, this study builds on the existing body of literature with the deeper phenomenological examination that is missing from the current academic conversation.

**Literature Review**

Teen pregnancy has been studied by a variety of different disciplines, including nursing, public health, psychology, communication, and education. Looking at the existing body of literature, it is obvious that direct conversation with young pregnant women is largely absent. The topics in the literature revolve around the causes, risk perceptions, and intervention techniques related to teenage pregnancy. The Appalachian context will also be examined.

**Causes of Teen Pregnancy**

Initiation of sexual intercourse is happening at increasingly earlier average age (Koyle, Jensen, Olsen, & Cundick, 1989), which in part explains the higher pregnancy levels among teenagers. Reasons for becoming sexually active were identified as curiosity, peer pressure, inability to say “no,” “fell in love,” and being under the influence of drugs or alcohol (Koyle, et al., 1989). According to earlier studies, sociocultural factors that influence adolescent sexuality include ethnicity, socioeconomic status, parental marital status, religious attitudes, and community size (Sorenson, 1973; Udry, Bauman, & Morris, 1975; Zelnik, Kantner, & Ford, 1982). A systematic review of data pertaining to European Union countries revealed that
socioeconomic disadvantage, disrupted family structure, and low educational level and aspiration are consistently associated with teenage pregnancy (Imamura, et al., 2007).

Teen pregnancy is often attributed to a cycle of poverty, both internal and external. In terms of internal poverty, girls with higher educational expectations and a more internalized locus of control were less likely to become pregnant before graduating from high school. In terms of external poverty, higher parental education levels and socioeconomic status were also associated with lower likelihood of teen pregnancy (Young, Turner, Denny, & Young, 2004). However, in a study on West Virginia, teen pregnancy was attributed not to the culture of welfare dependency and poverty, but to an absence of opportunity and the decline of traditional community patterns such as small schools (Bickel, Weaver, Williams, & Lange, 1997).

Risk Perceptions

Young people do not seem to view themselves as being at high risk for pregnancy (Smith, Weinman, & Mumford, 1982). A study examining high school students’ perspectives on pregnancy prevention found that among the sexually active students, only 35% were consistent contraceptors (Hacker, Amare, Strunk, & Horst, 2000). The teens in this study felt that having more information from parents, schools, and health arenas can help prevent teen pregnancy. Although teenagers have been found to recognize the problems associated with underage pregnancy, females’ attitudes toward preventing pregnancy were stronger than males’ (Robinson, Price, Thompson, & Schmalzried, 1998).

The Appalachian Context

Some of the early research conducted in this region, especially that stemming from the 1960s and 70s, has created lasting stereotypes about the Appalachian people as “yesterday’s people” (Weller, 1965), “regressive” (Polansky, Borgman, & De Saix, 1972), and “nonrational” (Ball, 1968). These labels have been largely left unchallenged (Keefe, 1988a). Though much has
changed in Appalachia, income, employment, health, and educational disparities continue to be a problem in the region (ARC, n.d.). There are a disproportionate number of disabled, unemployed, poor, retired, and uninsured people in Appalachia (Diddle & Denham, 2010). Substance abuse is also rampant in many communities (Thornton & Deitz-Allyn, 2010).

Literature exploring the causes of teen pregnancy, the way teenagers perceive the risks associated with pregnancy, and Appalachian culture will all be better informed by a closer look at what pregnancy means to the young women who are experiencing it. Direct conversation with the people at the source of this phenomenon is crucial to expanding our understanding of adolescent pregnancy in rural Appalachia, and can allow access to the lived experience of young women living in this area.

Methodology

Phenomenology

This was a phenomenological research study that involved in-depth interviews. With this qualitative, open-ended approach to interviewing young Appalachian mothers, the researcher achieved a better understand how these particular women make sense of their situations in the context of their lives. This study was not framed from a pre-determined theoretical orientation, but sought to engage in a direct and unmediated dialog with these young women according to the phenomenological tradition. Communication, in this tradition, is understood as what Craig calls experience of otherness (1999). The actual lived experience of these women is understood to be the basic data of reality. After conversing with these women, the meaning of their individual self-identities as mothers-to-be was constructed by the active process of assigning meaning to that experience (Littlejohn & Foss, 2011).

Participants
Recruitment for this study used purposive sampling initiated with the help of personal community contacts and the Healthy Families of East Tennessee program. Criteria for selection included that participants be between the ages of 18 and 22, and have experienced pregnancy and motherhood as a teenager. They must also be from small to medium sized towns or cities in the Southern Central Appalachian region. By choosing only girls who were at least 18 years old, the need for parental consent was eliminated. Fifteen participants were identified. At the time of writing, one participant had not yet turned 18, so her data will be included in a later version. The study will be extended with the inclusion of more participants and further analysis.

Data Collection

The interviews were conducted at either the participants home, a library, or the headquarters for Healthy Families of East Tennessee. Each lasted approximately 45 minutes, and was recorded with both an Olympus digital voice recorder. Interview protocol included preliminary questions and the standard ethics protocol to be read and signed by the interview participants. This was also explained to the participants in simpler terms. In addition, each participant was given a $25.00 Visa gift card as a participation incentive at the start of the interview. Each was told about the incentive prior to recruitment. The preliminary questions provided basic biographical information. From there, the interview was launched with “grand tour” questions, supported by floating and planned prompts as necessary (McCracken, 1988). The appendix includes both the preliminary questions as well as the grand tour questions that are intended to guide the interview and provide a springboard from which rich information can flow.

Data Analysis

All interviews were recorded and transcribed by the interviewer, which is an essential part of becoming familiar with and understanding the data. As suggested by McCracken (1988), analysis of the long interview seeks to determine the categories, relationships, and assumptions
that inform the respondent’s view of the world. He suggests a series of stages to the analytic process, most of which fit well within the paradigmatic perspective this study assumes. To begin, each utterance was observed as it stands on its own. Next, these utterances were developed more fully as observations, and then related back to the transcript. Here the observation was used as a kind of lens to determine whether any relationship or similarity suggests itself. The observations were then examined in relation to one another, and logical relations were identified not only for their similarities, but for their contradictions as well. The next analytical stage moved away from the text itself. This was a stage of refinement where fields of patterns and themes rose into view, and the general outlines of the data became apparent as properties of the data emerge.

During the fourth stage, themes were identified and judged. The thoughts and comments generated by the data were “harvested and winnowed” (McCracken, 1988, p. 46) into an organized hierarchy of themes under one or two chief points. By the fifth and final stage, the particulars of individual lives had been left behind, and concern was with the general properties of thought and action within the group under study. Here the overarching themes were brought together to formulate the theses. It is these broad themes that formed the basis of the discussion when reporting the findings, with references back to specific sections of the interviews as necessary. Although finding generalizable, representative data was not the point of this study, the researcher hopes to understand the phenomenon of motherhood for young Appalachian women.

The steps taken to ensure credibility follow Creswell’s (2007) recommendations for qualitative research. The researcher engaged in peer review of findings and analysis, as well as thick description of findings and context. In addition, the researcher engaged in persistent observation in the field by learning about the culture and spending time with both the participants and the professional community contacts.

**Findings**
The findings from the interview data represent an aggregation of common themes that emerged from conversations with a diverse group of young women. Although each had a unique background and pregnancy-to-motherhood experience, their stories shared many common elements. Some of these themes confirm previous research findings on similar topics. However, several aspects of this analysis are unique to this study and perhaps to the Appalachian context. The purpose of this analysis is not to generalize, but simply to add to the body of knowledge surrounding this phenomenon.

The experiences of teenage pregnancy and young motherhood for these women have been shaped by two distinct patterns across the data set: the need to fill a void and the endemic culture of drug abuse. Each will be described and then situated within the context of the broader research question: what the meaning of motherhood to young Appalachian mothers? It is important to first establish the demographic and biographical profiles of the participants so that the thematic elements can be understood within the context of their lives.

**Biographical data**

The participants ranged in age from 18 to 22 years old, and had all had the experience of becoming unwed mothers due to unplanned pregnancy during their teens. All had grown up and now lived in small to medium sized towns in the central region of southern Appalachia. Of the 14 participants, two were married to the fathers of their children, although one was in the process of separating from her husband. Two other participants were engaged to the fathers of their children, but one of those expressed doubt that they would actually marry. Eight of the young women were receiving welfare, and among those, 5 were living in public housing. Eight of the participants were living, either permanently or temporarily, with one or both parents or stepparents. Only 2 of the participants came from nuclear families with married parents, the rest
having either experienced the divorce of their parents or the death of a parent. As a result, many had blended families with several step- and half-siblings.

Four of the young women were African American, and the remaining 10 were Caucasian. In terms of education, 8 participants had dropped out of high school, 4 of whom had received their GEDs. Five participants had completed high school, 3 of whom were currently enrolled in college. The remaining participant was still enrolled in high school and intent on graduating. In addition to their responsibilities as parents and their educational pursuits, 5 of the young women also held jobs. All participants were already mothers to at least one child. Two of them were currently pregnant with their second children, and another had just given birth to her second child.

**Filling a void**

Most of the participants had described family life as disjointed and unstable, leaving them feeling rejected, abused, and unloved. Five participants mentioned that at least one parent had died or was in jail, and very few had both biological parents playing an active role in their lives. This type of family experience had clearly affected their lives, as parent-child closeness has been found to be negatively related to adolescent pregnancy (Miller, Bensen, & Galbraith, 2001). Kelly, for instance, whose son was 1 month old, had been in foster care since she was 9 years old due to molestation by her father. Lindsey, who became pregnant at 17, was sent to live with her grandparents at age 13 after her mother had died and her father was incarcerated for possession of drugs. After both her maternal then her paternal grandparents discovered that she was dating a black man, both kicked her out and she became homeless at age 17. Having nowhere else to turn, she fled to the care of her abusive boyfriend.

Overall, many of the participants expressed clear feelings of rejection by and loss of their families, leaving them feeling confused and empty. After a childhood of unsatisfying
relationships, many of the girls sought out love through early sexual encounters, with all but 2 of the participants having lost their virginity between the ages of 14 and 16. This was perceived by them to be the norm: very few of their teenaged peers, it seemed, had been abstinent. Gail, a 19-year-old mother whose father had died and mother was in jail for possession of crack-cocaine, exclaimed, “I didn’t start having sex till I was 16 years old!” hinting that she felt she had waited longer than most people her age. The initiation of sex and involvement in sexual relationships coincides with the feelings of rejection and emptiness expressed by many of the girls.

For the majority of the participants, these sexual relationships had been just as dysfunctional as family life had been. At the time of the interviews, only about one-third of the girls were still involved in relationships with the fathers of their children. Others struggled with either the absence of the child’s father or the attempts at integrating him into the child’s life. Jennifer, who had her 8-month old daughter at age 19, had also grown up being jostled around among parents, grandparents, boyfriends’ homes. During her interview, she described the father of her daughter as having “really bad anger problems…he like, goes off the hinge, he just- goes off.” She then displayed the bruises on her back he had given her two days prior.

The term codependency seems to describe the types of romantic and sexual relationships many of these girls had and were experiencing. As described by Susan, she and her son’s father, with whom she is currently in a relationship,

…we had this kind of dependency for one another…I want somebody, or I need somebody, or I think I need somebody – so I’m really dependent on having someone there, or knowing I have someone there even if they’re physically not there…um, which is really sad, I don’t know.

Before meeting Dave, husband and father of her son, Kelly described a previous relationship in which she fell in love, immediately began cohabitating, and was kicked out by her lover within
two weeks. Shortly thereafter, she met Dave while staying at a homeless shelter, and they were pregnant within two months. Kelly is an example of a participant who admits to suffering from the emotional void her dysfunctional family and sexual relationships have created admitting, “I have trust issues… I still kind of have a problem… of pushing people away, not letting them love me.” Lindsey explains that throughout her life, “I always wanted to feel loved.” She recognizes that becoming a mother is what has given her real love for the first time in her life. Her son is “…someone that loves you unconditionally, now I got that. And I can give him my love.”

Motherhood is a source of motivation as well. As Allison describes her life before becoming a mother, she explains that she had enlisted in the army because she didn’t know what else to do: “Like, cause when I thought about the future, there was like, nothing there. It was just a blank page.” But now, she knows that she has to strive for upper management positions at her jobs, and talked about her plans for achieving that. Similarly, Kendra feels the strain of poverty now, but lets her struggle fuel her motivation:

There’s no reason why I shouldn’t be able to give her the stuff she wants and needs…I know she’s [her daughter] not gonna get everything, but I’m gonna try my best to make sure that she has the stuff that she wants and needs.

Gail, who is 19 and on welfare, also responded that her child was a source of motivation:

It’s made me realize that I got responsibility right here. And to try harder cause I think if I wouldn’t’ve [sic] had my son, I wouldn’t be trying to go back to school and make anything, but I want to make a better life for him.

Motherhood has filled a void, a “blank space” in the lives of these young women. Before having children, many of them did not feel that they had ever experienced unconditional love. They grew up in poverty, and had parents that were either not present or incapable of adequately providing for them. Most of them did not have plans, or see a promising future for themselves.
This often led them to seek out love through sexual encounters, which through some transgression led to them become pregnant. The result of that pregnancy has been the unconditional love and motivation that they had always lacked. This finding is consistent with previous research on the transformative experience of teenage motherhood. Similar research has found that young women experience a newfound purpose in their child, and a reason to live and love. Girls who had experience unhappy childhoods were now able to recreate childhood in whatever happy and carefree way they should choose. They report increased self-worth, as well as heightened educational and career plans (Gregson, 2009).

**The culture of drug abuse**

Nearly every single participant mentioned drug abuse in her interview. They had all been touched by it in some way or another, which is a testament to the pervasive culture of drug abuse in the Appalachian region. As demonstrated, this was a major factor in the girls’ disordered family lives. The overall consensus was that drugs were “everywhere,” a completely ubiquitous part of everyday life in Appalachia.

Jennifer was the only participant who admitted to being an addict herself. From the age of 14 until finding out she was pregnant at 19, she had abused drugs and been in and out of rehab. She had mostly abused prescription pills, “Like roxys, oxys, hydros, percocets, Xanax…” and claims that she gone to rehab and gotten clean after becoming pregnant, and had been clean ever since. The baby’s father, however, remains what Jennifer describes as a “really bad prescription pill addict.”

As described previously, Lindsey’s father was in and out of jail and struggling with a crack addiction. Seeing and suffering through his struggle was motivation for her to avoid ever becoming involved with drugs:
I just always feel like, I know what my dad went through, and how I felt, and I don’t even want him [her son] too feel like that. That keeps me away from even thinking about [doing] it.

When asked about her son’s father, and whether or not he was still a presence in their lives, she became visibly upset, explaining that he had overdosed on OxyContin just a few months prior. Drugs had clearly been a negative force in her life, and shaped her situation in spite of her own sobriety.

Susan’s family had been immersed in drug culture from the time she was born. Both her parents and her brother have serious addictions, and it has led her to cut off contact with her father and brother. She continues to see her mother despite her downfall to prescription drug abuse: “She got into hydrocodone, and it was kinda her gateway drug I guess. So then she kind of…went to a lot of different stuff, all kinds of prescriptions…” In addition, her boyfriend Jason struggles with prescription pill addiction. Gail describes her relationship with her mother:

Well, my mom, she’s never really been a mom to me…I mean I know who she is, but she did some bad things in life. She’s a drug addict…she’s in prison. She’s been in prison since I can remember off and on.

She had grown up with no positive female influence in her life, and was left feeling utterly helpless and alone when she had her son just months after the death of her father: “I have- it’s just me and my son, I have no help.”

The fathers of both Elise’s and Kendra’s daughters had been abusing drugs and keeping it a secret from them. Each had made the decision to cut her daughter’s father out of her life because of this. According to Elise:
I was still gonna let him be part of her life, and THEN I found out about the drug addiction, and I told him to…that I wanted him to start taking drug tests if he was gonna see her.

She explains that this seemed to work at first, but that his addiction eventually took over and he lost interest in maintaining the relationships with Elise and their daughter.

Kelly and Shannon both saw a great deal of devastating drug use and addiction among siblings and friends. Kelly describes the damage her sister’s drug abuse has done to her family and their relationship:

She started [childbearing] young. Her first one was at 18, she’s had many different ones…um, I think one got put in foster care, 2 died, and she’s got two left. I don’t claim her as my sister- I’ve lost a lot of respect for her. She called me when I was in labor, and I ignored it.

In addition to her own son, Shannon and her mother have custody of her brother’s two children because her brother and his girlfriend are drug addicts. Shannon also told lengthy stories about prescription pill and crack-cocaine addiction among the other teenage mothers in her social network. She describes her brother and his girlfriend:

…well my brother’s girlfriend actually had her- had Madison when she was 16. She did good the whole time she was pregnant but when she got pregnant with Kayla, she got on pills real bad, and Kayla has emotional issues because of that.

[Do you see a lot of that? Prescription pill abuse?]

Yeah. That’s why I don’t hang out with the friends I used to. I have to say, almost 90% of…ok, the girl I hang out with the most, with the 2 kids, she’s 18- her, and my friend Jenna, they’re the only friends of mine that still have their kids.
Drug abuse is endemic to life in Appalachia, and the disparate proportion of people in Appalachia who are abusing opioid analgesics is clearly demonstrated by the available medical data. Not only do rates of abuse for prescription drugs remain higher in Appalachia, but those numbers are increasing at a faster rate. This sustained relative difference between Appalachia and the U.S. as a whole is striking (Zhang, Infante, Meit, & English, 2008). Research indicates that individuals who are less educated, under- or unemployed, or experiencing psychological stress may also be inclined to non-medical use or abuse of prescription painkillers (SAMHSA; Sinha, 2001). This describes many of the social and personal characteristics among the social networks of the participants in this study.

Discussion

The research question this study seeks to address is: what is the meaning of motherhood to young mothers in Appalachia? Based upon the patterns and observations within these interviews, the meaning of motherhood to these young women seems to revolve around motherhood as salvation. Overall, the participants seemed to feel that motherhood had saved them from a life without love, motivation, or plans for the future. Perhaps most striking is the barrier that motherhood is used to communicate between the girls and the ubiquitous drug culture that surrounds them.

Several participants described how motherhood had saved them from themselves. The only thing between them and falling prey to the temptation of drugs was the decision to commit to motherhood. Twenty-one-year-old Allison describes how her motherhood experience has reigned in her temptations and wanderlust:

I think 100% that it’s changed me. Because I’m thinking if I didn’t get knocked up, I’d have a serious drug habit. I’d either be in jail or another state, with probably like 6 other kids, yeah. So I’m thinking it’s probably the best thing!
Jennifer and Shondra each echo the same sentiment, and feel sure that they would have been partying, doing drugs, or in jail were it not for the experience of becoming a mother. Kelly felt sure that had she not become pregnant, “I’d probably still be in the shelter- ruining my life, drinking alcohol.” So many of them had witnessed and experienced the lures of drugs and partying, but had also felt the cost of giving in to that temptation. Becoming a mother, for them, had made the choice easy.

For others, the salvation of motherhood was less about saving them from their own potential downfall; instead, it was used to shut out the existing drug culture that surrounded them. Elise made this clear when she refused to let her daughter’s father near her without first taking a drug test. This was so prohibitive to their continued interaction that he eventually faded out of their lives. Her daughter was effectively held up as a shield against the negative influence of his presence. Kendra used a similar strategy to reduce her interaction with the father of her daughter, who was also heavily involved in drugs. Susan had experienced a strained and sad relationship with her family, her father and brother in particular. She used her status as a mother to break away from her family and work to establish her own life; however, she fears that the pervasive drug culture will catch up to her regardless:

I’m scared to death he’s [her son] gonna get into drugs. That is my biggest fear. I think I will officially be defeated if my baby is an addict, because…it’s everywhere, it’s happened.

Lindsey and Caitlin felt that a natural barrier had arisen from motherhood, and looked at their former circle of friends as people to whom they could no longer relate. In contrast, Shannon had to work hard to maintain the motherhood barrier between herself and her peers. She explains that drugs are the reason she doesn’t associate with the people she used to, but based on her
stories and the situation with her brother’s children being under her care, the drug culture continues to encroach on her life. She steadfastly maintains that for her, drugs and motherhood don’t mix. Being a mother has given her a reason to disassociate, to the best of her abilities, from the negative influences in her life.

Conclusions

The motherhood experience is unique to every individual, but there are thematic patterns that have been discovered among the dialog of young Appalachian women. For these young women, motherhood has been characterized as a kind of salvation from a life without love, a future, or sobriety. This study contributes to the existing literature by providing valuable insights into the lived experience of being a teenage mother. Ideas about the causes, risk perceptions, and possible intervention techniques associated with teenage pregnancy, which characterize the current related body of literature, can all be explored with this type of phenomenological research.

There are findings from this study that both confirm and extend the current adolescent pregnancy and motherhood literature. Previous research has found that motherhood fills the gaps felt by young women who lack love, motivation, and purpose (Gregson, 2009). This study confirms that motherhood represents hope, a reason to plan for the future, and a source of purpose. In addition, this study extends the current literature in its findings about the protective effects of motherhood against the ubiquitous Appalachian drug culture.

Implications of these findings might include the need to examine the protective effects of motherhood from dangerous sociocultural practices to people beyond the Appalachian region, and into other areas that experience relatively high teenage birthrates. In addition, when developing teenage pregnancy interventions, it is important to keep in mind that the effect of the drug culture on young people in Appalachia has very heavy consequences for the poor in
particular. Future research will include a secondary analysis of this data set to examine the sociocultural factors that shape health literacy.

Limitations of this study include the fact that, at this point, these findings and interpretations represent the research perspective of only one person. In addition, the long interview format may not be the most conducive to understanding the population in question. Teenagers may be inclined to a natural reticence when discussing sexuality (Jolley, 2001) and perhaps more so when discussing their indiscretions with an adult from a research institution. Future research will employ more directive questions from the very beginning.
References

Appalachian Regional Commission (n.d.). Appalachia’s Economy. Retrieved from
http://www.arc.gov/appalachian_region/AppalachiasEconomy.asp.


Bickel, R., Weaver, S., Williams, T., & Lange, L. (1997). Opportunity, community, and teen

Why Isn’t a Simple Solution Possible? American Journal of Epidemiology, 143, 311-318.

Adolescence, 23(1), 119-140.

Chin, J., Swamy, G., Floyd, S., & Bastian, L. (2010). Hormonal contraceptives and
adherence. In J. Chin, G. Swamy, S. Floyd, & L. Bastain (Eds.). Improving patient
treatment adherence (pp. 151-177). New York: Springer.


