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THE LIVED EXPERIENCE OF LOW-INCOME SINGLE MOTHERS IN THE U.S. AND THE
EFFECTS OF NATURE AS A PSYCHOTHERAPEUTIC TOOL IN THEIR TREATMENT

A dissertation presented to the faculty of

ANTIOCH UNIVERSITY SANTA BARBARA

in partial fulfillment of
the requirements for the
degree of

DOCTOR OF PSYCHOLOGY
in
CLINICAL PSYCHOLOGY

By

Suzanne L. Frost

May, 2019

THE LIVED EXPERIENCE OF LOW-INCOME SINGLE MOTHERS IN THE U.S. AND THE
EFFECTS OF NATURE AS A PSYCHOTHERAPEUTIC TOOL IN THEIR TREATMENT

This dissertation, by Suzanne L. Frost; has been approved by the committee members signed below who recommend that it be accepted by the faculty of Antioch University Santa Barbara in partial fulfillment of requirements for the degree of

DOCTOR OF PSYCHOLOGY

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Abstract

This dissertation describes current research on the lived experience of low-income single mothers and explores the potential validity of utilizing exposure to natural settings as a psychotherapeutic intervention for this population. In 2014, 4,764,000 single mothers in the U.S. were living in poverty. A large percentage of this population suffers from poverty, hunger, social stigma, as well as mental illnesses associated with these conditions, such as anxiety, stress, and depression. A qualitative influential research study was performed that included interviews with eight low income White single mothers and one Biracial Turkish and Chaktau Native American low-income single mother in predominantly rural Arizona. In these interviews, participants were asked to describe both causes and mitigating factors in their lived experience of being low-income single mother including the effects of regularly experiencing nature. Results indicated predominant financial distress, physical and mental illnesses of mothers and children, and social stigma and discrimination, as well as other lived experiences. All participants currently or in the past had found developmental, physical, and mental benefits from nature contact. Various successful ecotherapy self-care interventions and types of nature experiences were reported by project participants and validated by ecotherapy research. A proposed model of ecotherapy for low-income single mothers was theorized. Based on the results of this project, recommendations for educational and policy change regarding this population and the promising and often conclusive research on the efficacy of ecotherapy are presented. This dissertation is available in open access at AURA: Antioch University Repository and Archive, <http://aura.antioch.edu> and OhioLink ETD Center, <http://www.ohiolink.edu/etd>

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Introduction

Low-income single mothers in the U.S. face several types of social, economic, familial, and psychological hurdles in their quests to raise their children safely in a healthy way and gain greater financial success. In 2014, 4,764,000 single mothers in the U.S. were in living in poverty (DeNavas-Walt & Proctor, 2015). Current research shows that a large percentage of this population, more than likely because of poverty (Belle & Doucet, 2003) and the wage disparity between women and men in society (DeNavas-Walt & Proctor, 2015), suffers from and may have a propensity toward hunger, discrimination, and social stigma, as well as mental illnesses associated with these conditions, such as substance abuse, anxiety, stress, trauma, distress, and depression (Platt, Prins, Bates, & Keyes, 2016; Crosier, Butterworth, and Rodgers, 2007; Rousou et al., 2013; Avison, Davies, Willson, & Shuey, 2008; Broussard et al., 2012; Baranowska-Rataj, Matysiak, & Mynarska (2014); Zima, Wells, Benjamin, & Duan, 1996). As a group, these women struggle to maintain housing, feed and clothe themselves and their children, keep a job, find quality childcare, as well as many other daily living challenges that others who are married or who are in higher economic situations may not understand or even empathize with. "Only by acknowledging the bleak reality of poor women's lives, especially the high rates of traumatization, can we improve their mental health and well-being" (Bassuk, Buckner, Perloff, & Bassuk, 1998, p. 1564).

This dissertation includes reviews of recent research on the status of low-income single mothers in the U.S as well as historical and current ecotherapy clinical research, and reports the findings of a qualitative research study that interviewed nine low-income single mothers in early 2019 in Arizona, the majority of whom live in rural Northern Arizona. Results concluded that

current aid and other mitigating factors are apparently not effective enough to counter the problems of this population.

In the U.S., the poorest type of household is led by single women with no children living with them (13% of all U.S. households [DeNavas-Walt & Proctor, 2015]), and on average 40% of all births are to unmarried women (Hamilton, Hoyert, Martin, Strobino, & Guyer, 2013, p. 552). Half of all children born to unmarried women are poor. The next poorest type of household besides households led by single women are households led by single mothers, who represent approximately 12.5% of all types of U.S. households (DeNavas-Walt & Proctor, 2015). Therefore, when addressing the problem of poverty in the U.S., one of the biggest and possibly most vulnerable population that would be served by an intervention would logically be low-income single mothers and their children.

This dissertation investigated the possible causes of distress and common mental illnesses among this population, as well as known mitigating factors in an overall study of the lives of low-income single mothers. This research project attempted to determine whether some low-income single mothers currently mitigate short- or long-term mental health illnesses associated with low income single motherhood by purposely experiencing nonthreatening natural settings. Results of this study describes participant-reported effectiveness of their various forms of self-directed ecotherapy as a possible self-caring or clinical psychotherapeutic intervention. Participant responses about their current status in light of their use of self-directed ecotherapy are analyzed, and the efficacy of ecotherapy for use with this population is evaluated based on existing research and analysis of the participant data. Limitations of this study are also examined, and suggestions are given about future studies that expand the literature regarding their status and treatment for low-income single mothers in the U.S.

The research questions of this study are the following: (1) What are the current lived experiences of low-income single mothers in the U.S., and (2) what interventions or resources have been found to be helpful? A hypothesis has been developed that exposure to nonthreatening natural settings could be a valid mental health intervention for this population. This leads to the third research question: (3) Does exposure to indoor or outdoor natural settings improve the mental health of low-income single mothers?

Literature Review

Introduction

This chapter explores the possible causes and ramifications of the high poverty rate on these mothers, their illnesses, and even the high homelessness percentage of specifically low-income single mothers, as well as the many current mitigating factors that exist, such as cultural and nuclear family ties, work, quality childcare, child support, and public assistance. Based on the review of the literature, current mitigating factors are not enough to sustain this population. Several possible causal systemic factors may have contributed to the high number of low-income single mothers in the U.S: divorce, unplanned pregnancy, gender inequality between mothers and fathers in the U.S. and internationally, high U.S. and international poverty rates, and many other factors. U.S. women from many cultures and their children are associated with poorer socio-economic outcomes who have either by accident or for whatever reason, become pregnant and find themselves raising children alone outside of marriage (Monea & Thomas, 2011). Mitigating factors and supportive clinical interventions for common mental illnesses of this population are also discussed. Research on ecotherapy and its validity and efficacy are also reviewed. Few previous studies have looked specifically at ecotherapy as an intervention with this population. Research on ecotherapy does show that ecotherapy could be a viable valid self-care or clinical rehabilitation intervention with this population.

Systemic limitations of choice. It is useful to look first systemically at the fact that for these women in the U.S., motherhood, singlehood, or poverty may or may not have been by choice. On average, 40 to 50% of married couples in the United States divorce. The divorce rate for subsequent marriages is even higher. Also, today in the U.S., half of all pregnancies are unintentional (Monea & Thomas, 2011). In addition to the high risk of divorce and unplanned

pregnancy, the costs of pregnancy and childrearing in relationships fall heaviest on the mother (Budig & England, 2001, p. 205), which could lead to lower economic levels for women in general. Besides the added expense of children for women as compared to men, women overall earn lower wages (79%) often for the same or similar work as men (Platt, Prins, Bates, & Keyes, 2016; U.S. Census Bureau, 2013). Mothers in particular also suffer from a motherhood wage penalty in the workplace (Budig & England, 2001; Killewald & Bearak, 2010). This literature review describes the major systemic and cultural factors in the U.S such as the overall high divorce rate, unintentional pregnancy rates, costs of childrearing and motherhood wage penalty that all create external societal and cultural pressures that increase the risk of women becoming low-income single mothers.

Another possibility as to the cause of these women and mothers' generally lower income levels is the feminist perspective that women's lower economic status could be caused by prejudicial and rigid gender roles (Wood, 2009). Oppressive syntax in language perpetuates dysfunctional and unrealistic gender roles that, in turn, result in the oppression of women and nature in culture (Warren, 2015). This prejudice against women, as well as the high rate of alcoholism and drug abuse in the U.S., may have also contributed in the high rate of domestic violence against women in the U.S. One in four women in the U.S. have been physically or sexually assaulted by an intimate partner (Tjaden and Thoennes, 2000). Surely in response to domestic violence, some women may be forced to choose singlehood if only to protect themselves and possibly their children.

Nature as a psychotherapeutic tool. This review of the literature did show, however, that increasing and improving the natural living and work environments in which families reside may possibly help improve mental and physical illnesses that may plague single mothers. Studies

show that the calming and improved cognitive effects of viewing nature may relieve the debilitating but common stress, distress, depression, and other mental illnesses that low-income single mothers may endure. Improving the mental health of low-income single mothers may ultimately result in increasing their own abilities to self-help and self-care, or to seek out and secure the help that they may need.

Definition of “Single”

Singlehood in the U.S. has its own common social and psychological pressures and financial burdens, such as social stigma, as well as employment and social discrimination for both women and men. To escape a deep cultural bias that DePaulo (2005) calls the “Ideology of Marriage and Family,” this study defines singlehood as an identity in which the individual is not coupled with another person nor is in a “nonconventional” coupled status (Budgeon, 2008, p. 302). Furthermore, this study particularly targets single mothers who are not cohabiting with the father, or another mother, as in a lesbian couple cohabitation. Studies show that financial benefits and some possible social and mental drawbacks are particular to parental cohabitation without marriage which, for the sake of clarity, were chosen to be out of the scope of this study, when possible. However, cohabiting, unmarried single parents and single parents either not-cohabiting or not in a relationship are combined in census data as “nonmarried family households.” It is, therefore, often difficult to differentiate these two populations, but the methodology in this study is to do so when it is possible.

Prejudice, Stigma, and Trends Regarding Single People in General

In her study of Jewish single people, Shachar noted that diversity now exists in terms of types of relationships amongst people and lifestyles (Shachar et al., 2013). Greater acceptance of singleness may now exist due to the inability to find the right person or due to personal or

economic restraints, though being single raises questions about the possible reasons why people have “not attained the valued state of marriage” (Shachar et al., 2013, p. 262; Budgeon, 2008; and Koropecj-Cox, 2005). Single adults in society are seen to lead sad, less exciting lives than those people who are coupled (DePaulo & Morris, 2005). According to several prominent psychological development models, marriage is considered an achievement that is accessible to anyone and should be obtained by a certain time in one’s life (DePaulo & Morris, 2005). Even adults who are divorced are perceived more positively than someone who has never married—they have not apparently crossed this “developmental milestone” (DePaulo & Morris, 2005).

Most cultures elevate and privilege couple relationships (Budgeon, 2008; DePaulo & Morris, 2005). Though single identity may be strong in some individuals, Budgeon (2008) found in her study of 51 individuals of both sexes that “...heteronormativity bounds the telling of intimate lives because the idealized relationship form of coupledness operates as a central reference point, albeit one that is critiqued, resisted, and at times, subverted” (Budgeon, 2008, p. 319). Therefore, even defining the state of singlehood as “not married” refers back to “an idealized relationship form of coupledness” in society.

Characteristics of Single Mothers

In general, in all societies, a percentage of pregnant women or mothers with children have been single mothers. Many experiences can lead women to become single mothers, including personal choice, widowhood, intimacy before marriage or without marriage, divorce, domestic violence, reduced access and social support for abortion and birth control medical services, casual sex, partner abandonment, a single motherhood personal preference, homosexuality, or possibly rape.

Census data reveal that the percentage of single women with recent births in 2011 decreased with increased income: 68.9 % of recent mothers making less than \$10,000 were single, whereas 9% of recent mothers making more than \$200,000 were single. These data suggest that low-income single women are having more pregnancies recently than higher income single women despite their vulnerable financial situation. A topic for future research would be to determine whether having a middle-class or wealthy lifestyle and income made it too difficult to do both, and for what reasons.

Child centrality. Edin and Kefalas (2011) argue that low-income single mothers have a cultural “childhood centrality” that is in sharp contrast with higher income mothers who appear to put “education, career, and life goals” first resulting in delayed or lower pregnancies. “While the poor women we interviewed saw marriage as a luxury, something they aspired to but feared they might never achieve, they judged children to be a necessity, an absolutely essential part of a young woman’s life, the chief source of identity and meaning,” which contrasts significantly to attitudes expressed by middle-class single women across all ethnicities (Edin & Kefalas, 2011, p. 6).

Systemic challenges. Systemic factors contribute to the high numbers of single low-income mothers. The U.S. has the highest poverty rate among all wealthy nations (Gould & Wething, 2012; Belle & Doucet, 2003). In 2017, the official U.S. poverty rate dropped to 12.3% (1 in 8 Americans) and is part of a Census-reported, three-year trend in a downward national poverty rate from 2014, when a little over 46 million people (1 in 7 Americans) in the U.S. were in poverty (14.8% of the U.S. population) (Fontenot, Semega, & Kollar, 2018; Semega, Fontenot, & Kollar, 2017; DeNavas-Walt, Proctor, & Smith, 2014). “In 2017, there were 39.7

million people in poverty, not statistically different from the number in poverty in 2016” (Fontenot et al., 2018, p. 11).

The income gap between woman and men living with family has not been closing. Eighty-three million families (9.8%) of all primary U.S. families with a minimum of one other family member living at home were reported to be living in poverty in 2017, of which approximately 25.7% were female heads households with no husband present; 4.9% married couples, and 12.4% male householders, with no wife present (Fontenot et al., 2018). Approximately half of all children who live in women-lead households live below the poverty level (Pressman, 2018). The prevalence of poverty in the U.S. makes it likely that vulnerable populations would possibly have more difficulty in the intensely competitive U.S. culture. Yet to compete economically, gender income inequality would need to be remedied.

Adding to the prevalence of poverty in the U.S., the number of women in poverty (13% of 18- to 64-year-old women in the general population) is greater than the number of poor men in the U.S. (9.4% of 18- to 64-year-old men in the general population) (Fontenot et al., 2018; DeNavas-Walt et al., 2012). The 2017 poverty rate of female and male children under 18 were not statistically different at 17.7 and 17.3%, respectively (Fontenot et al., 2018). Minority women in general have far greater poverty in general than White or Asian minority women, as well as both minority and nonminority men. “In 2013, approximately 21% of school-age children were in families living in poverty. The percentage of school-age children living in poverty ranged across the U.S. is from 9% in New Hampshire to 33% in Mississippi,” according to the U.S. Department of Education (Aud, Wilkinson-Flicker, Nachazel, & Dziuba, 2013). No doubt, this prevalence of poverty and its variation by region contribute to some single mother’s apparent temporary or permanent inability to become economically successful. The systemic

challenges of the poor in the U.S. cannot help but adversely affect low-income single mothers who have complex vulnerabilities.

As mentioned earlier, the high rate of unintentional pregnancy, the higher rate of childcare expense born by women, lower overall economic advantages of women as compared to men, and prejudice against women in general all contribute to systemic low income single mother's inequality and prejudice against low-income single mothers that is part of *singlism* against all single women and men (DePaulo, 2006). In addition, low-income single mothers as women in society must not only contend with their nonconventional status and subsequent stigma as a single mother outside of a conventional nuclear family and full responsibility of raising their children, but also the general prejudices that exists culturally in an often sexist world that tends to value men over women. This dissertation describes and analyzes poverty as a form of violence against low-income single mothers that may result from the sexist, racist, and singlist patriarchal order in the U.S. (Roschelle, 2017, p. 1000; DePaulo, 2014) and throughout the world (Kabeer, 2015). As A. R. Roschelle summed up in her article, "Our Lives Matter: The Racialized Violence of Poverty Among Homeless Mothers of Color," "[R]ace, class, and gender discrimination intersect and result in communities plagued by inadequate educational opportunities, high rates of unemployment, excessive crime, and poor physical and mental health" (Roschelle, 2017, p. 1001).

Increasing birthrates. The number of single mothers in the U.S. is increasing. Among White women in the U.S., the birthrates of single women doubled between the midyears of the 1970s-1990s (Shachar et al., 2013). In 2005 in the U.S., one out of three White children were born into single women households and for African Americans, the birthrate was two out of three children born to single women households (Shachar et al., 2013). In 2011, 40% of all births were

to unmarried women (Hamilton et al., p. 552).

A staggeringly large portion of the U.S. household population are now led by low-income single mothers. According to data provided by the U.S. Census, in 2012, 24.9% of U.S. households were headed by a single mother (U.S. Census, 2013), and approximately 1.5% of the U.S. population are low-income single mothers: 4,764,000 (DeNavas-Walt & Proctor, 2015). The percentage of single father households with children under the age of 18 from 2001 to 2007 was 1.7% (Blackwell, 2010). This large percentage of households headed by a single mother is a significant change in U.S. society (Rousou, Kouta, Middleton, & Karanikola, 2013) because the number of single parent households has grown 10% from 1970 to the 2012 rate of 27% (U.S. Census, 2013).

Stigma and single mothers. Recently, studies are mixed as to whether stigma against single mothers is still prevalent with low-income women, though all indications are that single motherhood is often perceived as costlier, not optimal, and may illicit suspicion. On the one hand, deep stereotypes and the reality of economics have stigmatized women's singleness as not being a desired state regardless of the fact that some women do choose this as their preferred lifestyle, while others do not and come upon singleness by default (Shachar et al., 2013). Single mothers are breaking two of traditional society's cultural taboos: remaining single and having children out of wedlock. Single mothers in society may internalize the social stigma around them from negative stereotypes placed on single mothers by society (such as being seen mistakenly as promiscuous, rebellious, or disrespectful of cultural norms). They may experience stigma as a result of a fear from being treated poorly by others (Broussard et al., 2012).

Though many women either have chosen or have found themselves in the state of single motherhood, studies show that having a child as a single parent as compared to having a child

while married may bring more cost than benefit to one's life (Nomaguchi & Milkie, 2003).

“Those [parents] who have been continuously unmarried are most disadvantaged in terms of the effects of parental status on self-efficacy” (Nomaguchi & Milkie, 2003, p. 363). Nomaguchi & Milkie (2003) also found that continuously unmarried parents may be more depressed than continuously married adults who become parents (Nomaguchi & Milkie, 2003, p. 365). To the contrary, married women experienced a positive effect of parental status. Woo and Riley (2005) point out in Nomaguchi and Milkie's study that they did not isolate cohabiting single parents in their analyses. Furthermore, as Bumpass & Lu (2000) reported from the National Survey of Family Growth, 39 % of single mother births were to nonmarried, cohabiting couples. As stated previously, it would be useful for future studies to differentiate the characteristics of single, co-parenting, cohabiting couples.

Yet studies reveal that some low-income single mothers may view divorce as more stigmatizing than being a single mother and, therefore, would rather have their first child while single and then wait and see whether a marriage with the father or another man would work out (Edin & Kefalas, 2005). In the 21st century, some African Americans, Non-Hispanic Whites, and Puerto-Rican low-income single mothers were found to choose to have children before they were married rather than making a marriage mistake, which indicated that the stigma of motherhood had waned somewhat for these groups (Edin & Kefalas, 2005). Though they did not have the same findings as Edin & Kefalas regarding the desire for early unmarried pregnancy, Cherlin, Cross-Barnet, Burton, & Garrett-Peters (2008) found that single mothers do not feel stigmatized for having a child out of wedlock in low-income neighborhoods. overall, “the social climate in which our mothers' lives treats births outside of marriage as events that may not be optimal, but which carry little stigma” (Cherlin et al., 2008, p. 11).

Nevertheless, being a single mother can have several disadvantages that can be observed across culture and socioeconomic status (Baranowaska-Rataj, Matysiak, & Mynarska, 2014; Rousou et al., 2013). Disadvantages that single mothers have identified can be grouped into four main categories: financial hardships, psychological health, physical health, and social stigma (e.g., Baranowska-Rataj et al., 2014; Kingston, 2013; Broussard, Joseph, & Thompson, 2012; Cairney, Boyle, Offord, & Racine, 2003).

Taylor describes single women status as “the allowed, endorsed, even celebrated; yet simultaneously disavowed as that which must be pitied, scorned, and emptied of her oppositional potential” (Taylor, 2012, p. 13). Furthermore, single women portrayed and reflected in media culture are often depicted prejudicially with a tragic dichotomy that holds that for them “public/professional competency equals private/personal incompetency” (Taylor, 2012, p. 14). Low income does not necessarily reflect incompetency, just lack of financial success.

Financial Hardship and the Hunger of Low-Income Single Mothers

Financial hardship is the most common disadvantage that single mothers report. Single mother families have much higher poverty rates than any other type of household, except those of single women. Mothers often report difficulty in meeting their own and their child/children’s needs on one salary (Baranowaska-Rataj et al., 2014). During the economic recession of 2007, the percentage of single mothers receiving food stamps increased from 28 to 39% (U.S. Census, 2013). However, this assistance is not always enough and is often time-limited (Broussard et al., 2012).

Single women in all ethnicities have much lower incomes than single men (U.S. Census, 2014). U.S. census population studies show that in 2014 the median personal income of single women and men was \$26,673 and \$39,181, respectively (U.S. Census, 2014). U.S. single

women's income in 2011 was 32% less than single men, and the lowest income of any other type of household studied (U.S. Census, 2014). This included overall family and nonfamily households, family households with married couples, and female- or male-lead family households. Also, single people in the U.S. in general have lower incomes than married people with or without children: median incomes of all family households were \$68,426 in 2014 compared to median nonfamily male or female-lead single household incomes of \$32,047, and the median married-couple with children income of \$81,025 (U.S. Census, 2014).

Low-income single mothers with children are more likely to find housing help from government or nonprofit organizations than homeless low-income single men with no children (Passaro, 2014). People with children may more likely not remain homeless if they fall into homelessness because of government housing organizations such as Aid to Families of Dependent Children (Passaro, 2014).

Food insufficiency. Studies show that 31% of single mothers have *food insufficiency* (Heflin et al., 2005). Heflin et al. (2005) define food insufficiency as not being able to acquire or have certainty about having enough food to sustain oneself sufficiently to meet basic needs at least one time during the year due to lack of enough resources. Lack of food is known to be higher in people's lives that remain under the poverty line and households headed by single mothers. Hunger in one's life may cause stress, self-blame, thinking oneself as not efficacious, and loss of a sense of mastery, (Heflin et al., 2005), which are all factors that can lead to clinical depression.

Womanhood and motherhood wage penalties. Wages of mothers in general are less than other women (Budig & England, 2001). Having children may cause women to lose time at work, be somewhat less productive due to family concerns, and to choose lower paying, family

friendly jobs. In addition, employers may discriminate against mothers (Budig & England, 2001). Overall, studies show that the wage penalty for motherhood is 7% and is higher for married versus single women (Budig & England, 2001, p. 205). Budig and England (2001) argue that mothers disproportionately bear the costs of child rearing in general in our society. Furthermore, women in general have a gender wage penalty. For example, one recent study showed that women who were one year out of college earned 89% of what men earned in education, 86% of what men earned in business and management, and just 77% of what men earned with the same circumstances in sales occupations (Corbett & Hill, 2012).

Cultural Characteristics of Single Mothers in the U.S.

The population of single mothers varies greatly by culture. In 2012 in the U.S., birthrates for single mother households were 68% of African Americans, 43% of Latino children, 26% of White children, and 11% of Asian children (DeNavas-Walt, Proctor, B. D., & Smith, J. C., 2012). In contrast, the percentage of single father households with children under the age of 18 from 2001 to 2007 was 1.7% (Blackwell, 2010). Many minority single mothers have low income possibly due to the greater minority women's poverty levels in general in the U.S. In 2011 "[w]ith regard to race and ethnicity, non-Hispanic White women were least likely to experience poverty (10.6 percent), followed by non-Hispanic Asian women (11.9 percent). Relative to White and Asian women, about one-quarter of Hispanic, non-Hispanic Black, and non-Hispanic American Indian/Alaska Native women lived in poverty" (DeNavas-Walt, Proctor, B. D., & Smith, J. C., 2012). "Relative to White and Asian single-mother households, Black and Hispanic women (and their children) living in single-parent households are at high risk [40% higher] of being in poverty" (Damaske, Bratter, & Frech, 2016, pp. 3 and 11; Lichter and Crowley, 2004; and McLanahan and Percheski, 2008).

The median earnings of single female head of households with children was \$31, 032 (DeNavas-Walt, Proctor, B. D., & Smith, J. C., 2012). Male-led family households without wives earned \$49,718. According to the U.S. Department of Health & Human Services, in 2015 the poverty level for single people is \$11, 770; for two people, \$15, 930; for three people, \$20,090, and so on. In 2010, 42.2 % of single mothers were under the poverty line. This was close to three times the 15.1% poverty rate for the whole population. These statistics vary by racial and ethnic group in 2010: 32.7%, 47.1%, and 50.3% of White, Black, and Latino single mothers, respectively, lived below the poverty line (U.S. Census Bureau, 2011).

African American single mothers. Discrimination is widespread towards Black as well as Latino Americans, who are the largest minority groups in the U.S. One study showed that 98.1% of Black participants had been the victim of racial discrimination within the past year, 64.2% had experienced discrimination from banks and universities, 54.8% from social workers, medical doctors and counselors, and almost half of participants had been called a racist name (Landrine & Klonoff, 1996). Black low income single moms may be more likely to live in poverty due to “an accumulation of disadvantages” and “a lack of employment opportunities for women of color in urban environments” (Damaske et al., 2016).

Possibly to couch socioeconomic and prejudicial systemic pressures, African American family membership often goes beyond the nuclear family, one household, or even beyond blood relatives. “Several generations of extended family members and fictive kin may live together to maintain a strong network of social and economic support” (Murry, Bynum, Brody, Willert, & Stephens, 2001, p. 136).

Despite economic difficulties and social prejudice, Black mothers who have high self-esteem and believe that they are able to be good parents are more likely to have positive

parenting strategies that improve economic, mental health, and employment status (Murry, Bynum, Brody, Willert, & Stephens, 2001).

Latina single mothers. These mothers may have become parents due to teenage pregnancy or spousal abandonment, or the fact that motherhood is a “promise they can keep” due to the stigma and real threat of common divorce (Falicov, 2014; Edin & Kefalas, 2011). Second and third generation Latino people may have the same high divorce rate of 40 to 50% as the national average, though first-generation families divorce far less (Falicov, 2014).

Racism and prejudice cast a shadow on the Latino experience in the U.S. Entrenched negative stereotypes by the mainstream U.S. population include poverty, low levels of education, and poor talents. These stereotypes undoubtedly result in often severe segregation at work, home, and school (Suarez-Orozco & Paez, 2002; Falicov, 2014).

One common characteristic of first-generation Latina single mothers involved in immigration is that Latina single mothers may suffer from transnational relationship stress, which may even have resulted in their single low-income motherhood status. Spouses or divorced fathers of children may not be able to enter or reenter the U.S. leaving single mothers to find family, friends, and (hopefully) gainful employment to sustain themselves and their family. These mothers try to make meaning out of these separations and actively seek to preserve these relationships, with varying levels of success. However, Falicov (2014) holds that communications and expressions of emotions by parents separated from their children transnationally make a substantial contribution to existing and future family well-being (Falicov, 2014).

Incidentally, Latinas may choose abortion in more cases than in the past due to its more prevalent legitimization in Latin America. This may result in smaller family sizes (Llana, 2007).

The right to abortion is spreading in Latin America but continues to be most intensely opposed in all forms by Evangelicals (Llana, 2007). Alternative Latino family forms that differ from the conventional heterosexual two-parent headed household recently include single parent, divorced, remarried, same-sex, consensual unions, or living apart configurations (Falicov, 2014).

Asian single mothers. One recent study of Japanese single women found that reasons for their singlehood stemmed from a male intimate partner's reluctance to marry as well as mixed feelings about men and relationships (Maeda & Hecht, 2012, p. 57). The women in this study (the same group were sampled twice: once in 2003 [n=30] and in 2007 [n=20] three years apart) were all over 30 and never been married with mean ages of 39 and 42. In this study, 93% worked, 70% did not have intimate partners, and 27% had university or graduate degrees. Asian women's ability to achieve self-acceptance of their identity as single women and mothers over time helps them cope with their alternative, nontraditional cultural lifestyle (Maeda & Hecht, 2012).

White single, low-income mothers. Though studies of specifically White single low-income mothers appear to be sparse, one study with a primarily White sample concentrated on the struggles that these women had to keep their jobs in the face of the challenges of single parenting. Four main areas of concern were identified that appears to be fairly universal regardless of ethnicity: "(a) demands from family and work, (b) resources the mothers used to maintain their employment, (c) work-family conflict, and (d) strategies to retain employment" (Son & Bauer, 2010).

Childcare was performed by extended family primarily. Some women received money from older children who also cared for the household and younger brothers and sisters. Other important though informal resources were neighbors, coworkers, and supervisors. Flexibility in

the workplace was key to a feeling of control over their family and work lives. Conflicts arose due to their limited time to spend with their children, especially when they were ill. Job insecurity arose when mothers missed work due to unexpected family demands. Fatigue resulted from the combination of work and family demands (Son & Bauer, 2010).

Oppressive Social-Economic Environments and Reported Poor Mental Health of Low-Income Single Mothers

Some researchers have claimed that in general married people are happier than unmarried people. However, such cross-sectional research cannot support causal claims that married people are happier because they got married. In fact, a review of 18 methodologically superior longitudinal studies showed that people who marry do not become any happier than they were when they were single, except occasionally for a brief increase in happiness around the time of the wedding (Luhmann, Hofmann, Eid, & Lucas, 2012; DePaulo, 2013).

In addition, even the cross-sectional finding of marital advantage is a qualified one: single people are generally as happy as married people when the local, regional, or national communities and governments in which they live support alternative cohabitation or single adult living; i.e., communities without singlism (stereotyping or stigmatizing of single adults) (Vanassche, Swicegood, & Matthijs, 2013).

Common mental illnesses of low-income single mothers are substance abuse, anxiety, stress, trauma, poor self-efficacy, distress, trauma and depression (Rousou, Kouta, Middleton, & Karanikola, 2013; Goodman, Smyth, Borges & Singer, 2009; McLanahan, 2004; Nomaguchi & Milkie, 2003). Brief or prolonged episodes of discrimination have been found in research to have quantifiable, short term effect on victims (Dion & Earn, 1975). Study subjects performed more poorly on cognitive tasks, behaved less generously to peers, and reported heightened levels

of “stress, aggression, sadness, egotism, and anxiety” (Dion & Earn, 1975). The widespread cultural beliefs in the inferiority of Blacks and women, for example, have been shown to have “insidious effects” called the “stereotype threat” (Steele, 1997). When Blacks and/or women are reminded of these negative stereotypes shortly before attempting a difficult task, the fear that one will prove the negative stereotype true may result in a major obstruction in performance levels leading exactly to the consequences that the individual feared (Steele, 1997). Many single mothers express being “looked down [on]” (Broussard et al., 2012, p. 193) as a result of the challenges they face. These types of feelings evoked in an oppressive social-economic environment may make single mothers more prone to depression and other mental illnesses (Broussard et al., 2012).

Along with recovering from the possible trauma of domestic violence so prevalent in lower income families, depression is common among people experiencing humiliation or entrapment within “severe” lifetime events (Brown & Moran, 1997). These severe experiences are more common in women suffering from financial difficulties (Brown & Moran, 1997). Parents who report financial hardships appear to be at greater risk of depression (Kingston, 2013).

High occurrences of common mental disorders are found in 45% of single mothers as compared to 23.6% of partnered mothers (Crosier, Butterworth, and Rodgers, 2007). Examples of these disorders are anxiety, depression, and substance use disorder. Many of the possible consequences of the disadvantages of being low income single mothers are possibly the result of the long hours and chronic stress that single mothers may face (Rousou et al., 2013). “...[W]omen who have been single mothers throughout a significant portion of their life course are more likely than others to have trajectories of severe distress” (Avison et al., 2008, p. 248).

Trajectories of severe distress appear to be correlated with higher risk of depression earlier in the life cycle, with depression in single mothers commonly being a relapse (Avison et al., 2008).

Raising children and having to play both father- and motherhood roles for their children is exhausting. Additionally, single mothers tend to be young, which may intensify difficulties (Cairney et al., 2003). In general, single mothers often report feeling tired, stressed, and overwhelmed (Baranowaska-Rataj et al., 2014). Homeless mothers tend to suffer from depression and substance abuse with greater severity than the general population (Bassuk et al., 1998). Research also has shown that homeless mothers have a 72% probability of a substance disorder, a mental disorder, or both (Zima, Wells, Benjamin, & Duan, 1996).

Environment. A common consequence of this low income are the neighborhoods in which single mothers can afford. Low socioeconomic status may result in a single mother and her children living in an unsafe area with minimal healthy and affordable recreational options for children, and poor schooling (Kingston, 2013). Additionally, as a result of the economic disadvantage that single mothers face, pursuing their own higher education becomes difficult (Cairney et al., 2003).

Physical health effects. Physical health concerns are often present along with financial stressors that a single mother goes through (Rousou et al., 2013). Single mothers often report high and chronic levels of stress (Cairney et al., 2003). These mothers express consistent worry regarding housing, food insecurity, and safety (Broussard et al., 2012). In tandem with chronic stressors faced, single mothers may be more prone towards an impaired immune system, diabetes, joint pains, and obesity (Broussard et al., 2012). However, as a result of the need to address the hardships at hand (particularly if they impact the children), single mothers report ignoring their own health (Broussard et al., 2012).

Isolation and lack of social support. Unless single parents are cohabitating or in significant relationship, they often lack the support that would be provided by a partner (Kingston, 2013). Lack of social support and their perceived social support that a single mother encounters appear to influence their mental health as well (Kingston, 2013). One possible factor that may contribute to lack of social or familial support is the mother's cultural background (Kingston, 2013). While cultural background may hamper the social support that is received, the high demands that a single mother faces may also impede a mother's ability to socialize, and therefore, they may become socially isolated (Cairney et al., 2003). In addition to financial stressors, health concerns, and social stigma, single mothers may struggle when attempting to engage in romantic relationships (Baranowaska-Rataj et al., 2014). In conclusion, the social inequality of women in general, higher poverty rates, and high levels of traumatization of low-income single mothers all may lead to higher rates of substance use and the difficulties of divorce with children.

Potential Mitigating Factors and Intervention Strategies

Mitigating factors in the literature that may be a part of effective clinical interventions are helping to foster cultural and nuclear family ties, the recognition of motherhood as a sustaining factor, and validating the positive effects of work, quality childcare, fathers who care, and public assistance. In addition, Damaske et al. (2016) found that public assistance may or may not help improve economic status in that it may not raise these families above low-income levels, but public assistance such as food stamps, and health and childcare can "buffer" the ill effects of poverty.

Cairney et al. (2003) found that many single mothers had a significant amount of childhood adversity. As a result, Cairney et al. (2003) argued that single mother's exposure to

dealing and coping with adversities throughout their life allows them to be less affected by their negative experiences. This argument adds to the consistent theme that although single mothers face several disadvantages and challenges as a single parent, they enjoy the benefits of being a parent (Baranowaska-Rataj et al., 2014). For many, even if the pregnancy is unplanned, it becomes a motivating factor to take positive steps in their life (Baranowaska-Rataj et al., 2014).

Zabkiewicz (2010) found that full-time, or consistent long-term employment improves mental health of poor single mothers. The sample location used in this study has been used consistently in population-based research. Of the 1,510 low-income mothers on aide in Northern California that participated in the study, 77% were not married or cohabitating and more than half said that they received no family support. One-third of these mothers had more than three children, and 61% had a child younger than 4 years old. The ages of the women were almost equally divided: 19-24 (34%), 25-34 (39%), and 35+ (27%). Most beneficiaries were Black (38.2%), followed by White (29%), Latina (19%), and other minorities (13.7).

McCartney, Dearing, Taylor, & Bub (2007) studied the effects of mediocre and quality childcare on the well-being of low-income single mothers and their children. This study found that high quality childcare can buffer the deleterious effects of poverty. The positive children's outcomes were school readiness, receptive language, and expressive language. For low-income children, even poor quality childcare was shown to improve language outcomes.

Though co-resident low income fathers typically spend more time with their children, one cannot over stress the important benefits that a nonresident low income father can provide their children (and, therefore, indirectly to their mother) by way of formal and informal financial support and positive interactions with them (Carlson & Magnuson, 2011). Unmarried fathers typically provide informal, but not formal (mandated), financial support particularly around

childbirth, but in five years, 47% of mothers may have child support in place (Nepomnyaschy & Garfinkel, 2008). Child support has been shown to positively affect child outcomes (Carlson & Magnuson, 2011). Encouraging mothers to reach out to the fathers of their children for help if they can be reasonable interpersonally, may aide the family greatly. Therapists can encourage mothers by pointing out these mitigating factors that can greatly ameliorate the struggles of low-income families headed by single mothers, but statistics show that this population and their poverty are growing.

The Effects of Nature on Mental Health

Ecotherapy techniques may also mitigate the mental illnesses that are typical of low-income single mothers. For example, time spent experiencing or viewing natural settings, such as viewing gardens or gardening or experiencing wilderness, may foster better psychological well-being (Doherty, 2016; Doherty & Chen, 2016; Grahn & Stigsdotter, 2010; Berman, Jones, and Kaplan, 2008; Berto, 2005; Kaplan, 1973). Viewing natural settings has also been associated with improved cognitive functioning (Tennessen & Cimprich, 1995), and may speed recovery from illnesses (Verderber & Reuman, 1987). Because stress is an overarching dependent variable that adversely effects both mental and physical health, Ulrich et al. (1991) researched the effects of viewing natural and urban environments on stress. Several theoretical perspectives converged to stimulate Ulrich's hypothesis that views of nonthreatening natural settings would allow for greater recovery from stress than views of urban settings.

Many Western cultural beliefs dating back to Roman times allude to the value of nature to counteract the loud noises, crowdedness, and other stressors of city life (Glacken, 1967). In Western modern cultures, the tendency to revere nature and dislike cities could be influenced by the tendency to recreate in rural areas. Natural settings may have lower levels of overt

complexity and other arousing attributes than urban areas, thus making natural views or settings more recuperative following a stressor (Cohen, 1978). Evolutionary theories postulate that humans evolved for a long period of time in the natural environment and that, therefore, we may in general have an instinctual positive response to nonthreatening natural content such as flora and water (Kaplan & Kaplan, 1989; Ulrich, 1983; and Orians, 1986).

In the psychology field, the therapeutic fields of ecotherapy, ecopsychology, environmental psychology, and adventure therapy all have incorporated the healing properties of nature into various treatments for mental and physical illnesses with varying degrees of successful results (For a comprehensive survey of studies, theoretical perspectives, and commentaries, see Doherty & Chen (2016) and Doherty (2016)).

Evidence-based studies on the healing properties of natural settings generally substantiate the efficacy of nature-related mental health treatments. In addition, studies suggest that further research is needed to determine whether certain mentally ill populations would benefit from psychotherapy combined with nature as an added tool. Very few empirical studies currently exist that study the effects of exposure to nature on the mental health of specific populations (Chalquist, 2009).

The subjects of Ulrich's study were 120 undergraduate volunteers of equal gender at the University of Delaware who were diversified as far as their current course of study. The study was done in a laboratory setting. Participants were first shown a stressful movie and then one of six videos of urban and natural settings. The use of video instead of live experience in this instance has been shown to be statistically similar enough for research purposes (Zube, Vining, Law, and Bechtel, 1985). Physiological measures of EKG, pulse transit time (PTT), spontaneous skin conductance responding (SCR), and frontalis muscle tension (EMG) were recorded from all

subjects. Participants were asked to verbally rate their feelings before and after the stressor and recovery tapes using the Zuckerman Inventory of Personal Reactions (ZIPERS) (Zuckerman, 1977). Both physiological and self-reported feelings measures indicated that recovery from stress was much quicker and more thorough when participants viewed natural settings rather than a pedestrian mall or street traffic environments (see Figures 1-4). One significant result was the rapid speed of recovery while viewing natural settings to a higher level than the original baseline level, which suggest that further nonlaboratory studies of short-term real contexts with nature or viewing nature out a window may show positive results as well.

In 1995 a study confirmed Ulrich's hunch that even modest exposure to natural settings could have substantial mental benefit. Tennessen & Cimprich (1995) measured the effects that all-natural views out of a window could have on students versus students without all-natural views. Researchers hypothesized from several theoretical perspectives that having an all-natural or partially natural view would aid in restoring attention fatigue far greater than a view of other buildings.

Directed attention is defined as the extent to which people can block competing input or distractions during intentional activity (Posner & Snyder, 1975; Kaplan & Kaplan, 1982). This capacity is essential for performing many mental tasks: selecting and retrieving information, planning, and responding and behaving in ways that allow for meeting goals. Lack of directed attention abilities could lead, in the worst case, to an inability to be effective in daily life. Kaplan & Kaplan (1989) theorized that four factors are involved in an attention-restoring experience: fascination, a sense of being away, sufficient extent, and compatibility.

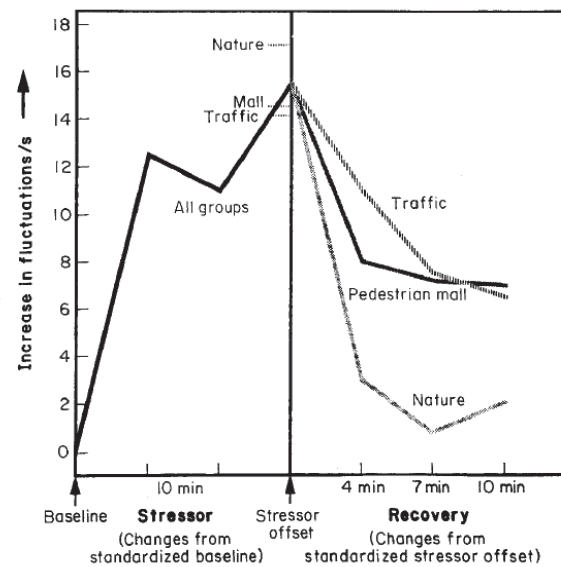


Figure 1. Alterations in Skin Conductance (SCR) in stress and recovery (Ulrich et al., 1991).

There is a temporary drop during the stress and also in the recovery phase when stress is turned off. (Permission to reuse this figure was received from the author.)

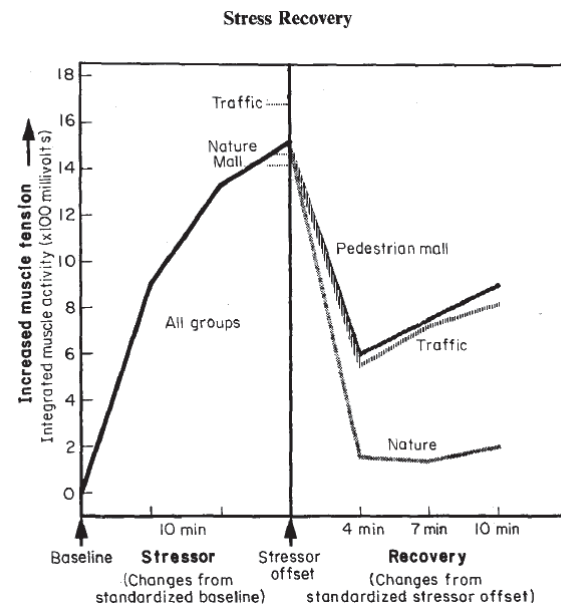


Figure 2. Alterations in Pulse Transit Time (PTT) During Stress and Recovery (Ulrich et al., 1991). The pedestrian mall and traffic views are seen to arouse rather to restore during the recovery phase. (Permission to reuse this figure was received from the author.)

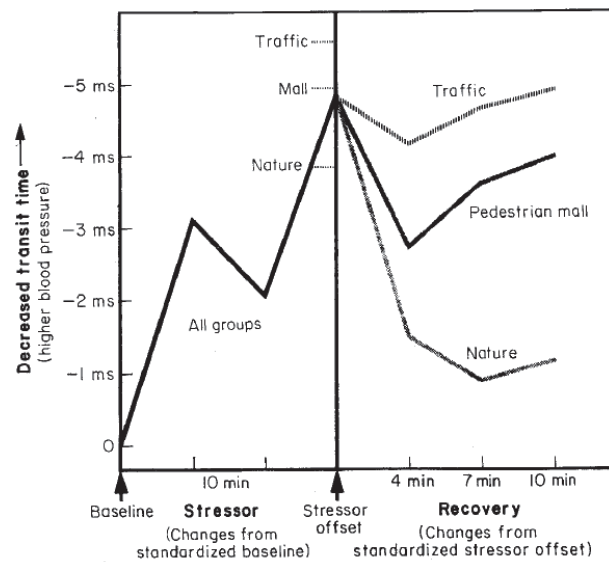


Figure 3. Alterations in muscle tension (EMG) during stress and recovery (Ulrich et al., 1991).

The pedestrian mall and traffic views are seen to arouse rather to restore during the recovery phase. (Permission to reuse this figure was received from the author.)

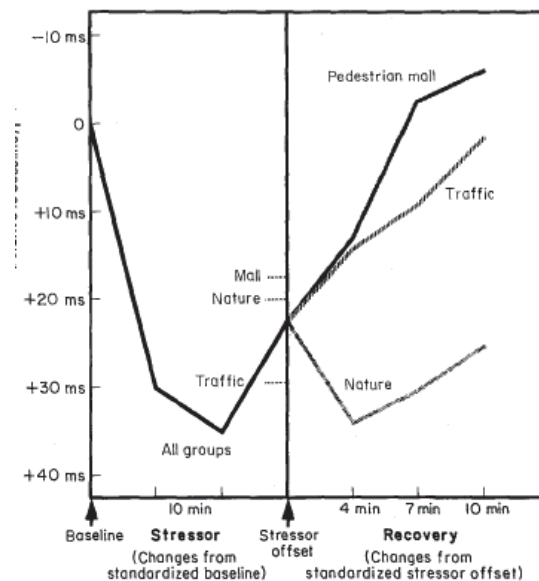


Figure 4. Alterations in heart period during stress and recovery (Ulrich et al., 1991). This measure is an indicator of intake/attention, unlike the other measures. (Permission to reuse this figure was received from the author.)

Seventy-two undergraduate students were categorized into four similar groups that ranged from all-natural views to all built views at a large Midwestern university, with most of the students being juniors or seniors. Participants were administered tests once in their rooms with neurocognitive and directed attention measures: the Digit Span Forward (DSFT) and Backward (DSFT) and Symbol Digit Modalities (SDMT) (Lezak, 1983), the Necker Cube Pattern Control Test (NCPC) (Cimprich, 1993), and a subjective rating using the Attentional Function Index. Data that showed sample size of all-natural view with $n = 10$ should not be considered because of the low sample size.

This study concluded that university students with views of natural settings may have benefited from increased ability and capacity to direct attention. The only measures that showed significant effects were the SDMT (All and Mostly Natural = 68.95; Mostly & All Built = 62.29) and the NCPC (All & Mostly Natural = - 62.35%; Mostly & All Built = -35.87%). All others had probability that was higher than 0.05. In addition, the sample size of 20 is low that grouped All & Mostly Natural statistics. Nevertheless, SDMT measures directed attention when the subject is performing complex tasks, and NCPC measures the ability to block out competing stimuli. These measures are key in directed attention and when combined, validate the hypothesis that for these university students, their natural views promoted greater directed attention ability.

In 2012, Raanaas, Patil, and Hartig studied the effects of windows to natural settings on patients in a rehabilitation center with similar, but not as comprehensive, results. In a quasi-experimental study, they hypothesized that based on past studies such as by Ulrich et al. (1991) and Tennessen & Cimprich (1995) a private room with a window view to a natural setting would

have healthy effects on rehabilitation patients and their general well-being. Three types of window views were used in the study with blocked, medium, and high nature views. Patients were tested at five different time points from arrival at the center to two weeks after returning home, with 250 lung patients and 345 heart patients used 52 rooms. Outcome measures were self-reports.

Clients with panorama views were most satisfied and in blocked-view rooms, least satisfied. Patients with panoramic views used their room to withdraw for privacy possibly alleviating the demands of the center and their difficult health issues. Findings supported Ulrich's view that passive contact with natural settings may help patients cope better with the difficulties of illness. This study did differ from Ulrich's study in that a blocked view did not adversely affect the mental health of women as it did men during their stay, but women were more positively impacted by a panoramic view than men. Also, no effect was shown on emotional states or subjective well-being (Raanaas et al., 2012, p. 31). This could have been due to a greater emphasis on health perceived in the preceding week. Lung patients had more positive effects than heart patients. The researchers hypothesized that this could have been due to greater restraints that patients must undergo in their treatment which would lend themselves to greater appreciation of views due to their forced stationary situations. The recommendation based on this study is that particularly vulnerable patients should be given the nicest views.

To find buffers for the toils and adversity in the lives of children, researchers in 2003 studied 337 children who lived in rural areas (Wells & Evans, 2003). Though many studies found that adult time spent in natural environments is associated with better mental wellbeing, researchers were beginning to substantiate these findings in children. Children's preference for running free in the outdoors could stem from an evolutionary bias and an affinity for places

where they may not only enjoy but thrive. Nature as a hypothesized buffer could attenuate adverse effects of stress or other large, negative effects that degrade good health or well-being. Socio-economic levels of the children were controlled because it is another independent variable due to its potential effect on children's health and well-being. Their mean age was 9.2 years.

Findings showed in Table 1 that the effect of life stress and life stress with nature on psychological stress was 53.14 to 4.73 F, respectively, which was a very large decrease in stress levels as a result of association with natural surroundings. (Permission to reuse this table was received from the author. See Appendix C) In Table 2, the effect of life stress and life stress plus natural surroundings on the children's global self-worth were also considerably positively impacted: 40.54 to 10.64 F, respectively. Figure 5 indicates the effects of low to high nature on psychological stress revealing that nature was particularly beneficial for highly stressful life events (Wells & Evans, 2003).

Table 1.

Regression of Children's Psychological Distress (Rutter) Onto Nature, Life Stress, and the Interaction of Stress x Nature, Controlling for Income (Wells & Evans, 2003). (Permission to reuse this table was received from the author.)

<i>Model</i>	<i>Predictor</i>	<i>Total R²</i>	<i>ΔR²</i>	<i>F(ΔR²)</i>	<i>df</i>	<i>b</i>	<i>SE b</i>	<i>p</i>
Control	Income	.129	.129	49.57**	1, 336	-1.99	.283	.000
Main effect	Nature	.145	.016	6.27*	2, 335	2.36	.941	.013
Main effect	Life Stress	.240	.113	53.14**	2, 336	-.352	.050	.000
Interaction	Nature × Life Stress	.259	.011	4.73*	4, 333	-.313	.144	.030

NOTE: Differences in degrees of freedom for main effect analyses reflect variations in sample size.

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

Table 2

Regression of Children's Global Self-Worth Onto Nature, Stressful Life Events, and Interaction of Stress \times Nature, Controlling for Income of Family (Wells & Evans, 2003). (Permission to reuse this table was received from the authors.)

Model	Predictor	Total R^2	ΔR^2	$F(\Delta R^2)$	df	b	SE b	p
Control	Income	.050	.050	15.86**	1, 299	.118	.030	.000
Main effect	Nature	.066	.016	5.05*	2, 298	-.228	.102	.025
Main effect	Life Stress	.164	.114	40.54**	2, 298	.034	.005	.000
Interaction	Nature \times Life Stress	.200	.029	10.64*	4, 296	.052	.016	.001

NOTE: Differences in degrees of freedom for main effect analyses reflect variations in sample size.
* $p < .05$. ** $p < .001$.

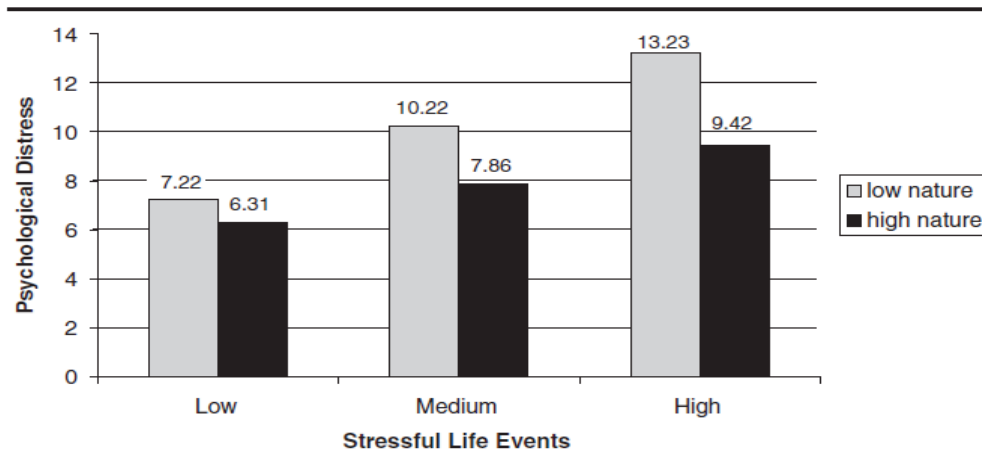


Figure 5. Nature moderated effects of stressful life events on psychological distress.

(Permission to reuse this figure was received from the author.)

Karmanov & Hamel (2008) argued that urban environments could meet the same standards that Kaplan & Kaplan (1989) identifies for the four restorative environmental qualities of the feeling being away, fascination, sufficient extent, and compatible with human needs. In this way, they hypothesized and attempted to show empirically that well-designed and attractive urban environments may have a stress-ameliorating and mood regulating quality equal to a nonthreatening natural setting. To do this, he compared Amstellan in The Netherlands with a newly developed area of excellent architectural quality with front gardens, lots of water, and canals of different shapes with various levels of traffic. He also added cultural information as an independent variable to show the impact of knowledge, or narrative, on the experience of places. He hypothesized that a well-designed urban area with its own narrative would have the same effect as natural surroundings on mental states.

Participants in the study were 86 freshman and sophomore psychology students from the University of Amsterdam (63.5% females and 36.5% males, with an average age of 21.5 (S.D. = 5.1). They were randomly assigned to four groups: two natural setting groups with or without narratives, and urban settings with or without narratives. The number of participants in these groups was 26, 21, 19, and 19, respectively. Researchers controlled for equal types of participants in both groups, verifying that the natural environment selected was indeed considered such, and ruled out any effect of the commentary on the videos that were shown to depict natural and urban environments. Results are shown in Table 3. (Permission to reuse this table was received from the author.) These researchers theorized that a combination of water, green spaces, and *design* in the urban space selected lead to raising its positive mental effects as high as a natural setting in most ways. The exception was that the urban setting did not restore depression as well as the natural setting, based on the data shown in Table 3.

Table 3

The effects of natural and urban environments on dimensions of affective restoration (Karmanov & Hamel, 2008). (Permission to reuse this table was received from the authors.)

Dimension	Environment × dimension interaction	Main effect		
		Environment	Nature	Urban
Depression	$F_{(1,83)} = 1.79; p = 0.19$	$F_{(1,83)} = 0.92; p = 0.34$	$F_{(1,46)} = 11.38; p = 0.002$	$F_{(1,37)} = 1.62; p = 0.21$
Anger	$F_{(1,83)} = 0.42; p = 0.52$	$F_{(1,83)} = 0.64; p = 0.43$	$F_{(1,46)} = 39.74; p < 0.0005$	$F_{(1,37)} = 10.92; p = 0.002$
Tension	$F_{(1,83)} = 0.044; p = 0.84$	$F_{(1,83)} = 0.025; p = 0.87$	$F_{(1,46)} = 18.03; p < 0.0005$	$F_{(1,37)} = 3.91; p < 0.0005$
Tiredness	$F_{(1,83)} = 0.51; p = 0.48$	$F_{(1,83)} = 0.058; p = 0.81$	$F_{(1,46)} = 2.04; p = 0.16$	$F_{(1,37)} = 0.43; p = 0.51$
Power	$F_{(1,83)} = 2.82; p = 0.097$	$F_{(1,83)} = 0.13; p = 0.72$	$F_{(1,46)} = 22.89; p < 0.0005$	$F_{(1,37)} = 4.22; p = 0.047$
Restoration combined (DAT)	$F_{(1,83)} = 0.86; p = 0.36$	$F_{(1,83)} = 0.53; p = 0.47$	$F_{(1,46)} = 37.37; p < 0.0005$	$F_{(1,37)} = 19.04; p < 0.0005$

Discussion

The findings of Ulrich (1991); Tennessen & Cimprich (1995); Raanaas et al., (2012); Wells & Evans (2003), and Karmanov & Hamel (2008) show the potential improved cognitive effects of incorporating natural settings to promote recovery from physical and mental distress. Wells & Evans demonstrated that natural surroundings or nature close by can counter the effects of stressful events in the case of children. Would it be advantageous for adults who are in distress to be exposed to outside natural settings versus exposure to inside natural surroundings, such as having indoor houseplants? Could mental health professionals and psychotherapists use outside, nonthreatening exposure to natural settings as an additional tool in the treatment of chronically distressed mental health patients? Based on these studies on the psychological effects of nature, it would be prudent to hypothesize that exposing low-income single mothers to indoor or outdoor nonthreatening natural settings would aide them in their recovery by strengthening their directed attention abilities and lowering their stress.

Method

A qualitative study was performed to deepen general understanding of the possible lived experience of low-income single mothers, and to analyze the validity of a nature-based, self-care mental health intervention for further study. This qualitative, ethnographical study explored the lived experience of nine low-income single mother participants ($n = 9$) and the ways in which their intentional exposure to natural settings may be mentally and/or physically beneficial to them. Appendix A lists the semi-structured participant protocol that was used by myself to conduct one-hour interviews with volunteer participants.

Data were collected through interviewing the participants in one-on-one, one-hour-long sessions and with a protocol of questions that were open-ended to prompt the participants to share descriptions of broad aspects life. The identity of research participants was confidential and will remain so. All regulations and guidelines related to the protection of potentially vulnerable research participants were followed.

Interview Process and Protocol

The interview protocol (Appendix A) was developed to provide a forum in which the informant could freely divulge states of being, actions, and events in their lives without bias being transferred to the participant either by the questions or the interviewer. The protocol was intended to allow the participants to freely give their own description of their experiences while allowing the researcher to discover the meaning of actions and events in their lives (Spradley, 1979). The first and last questions in the protocol were what is known as *grand tour* questions in that they were general questions to collect descriptions of the central topic of our research question: i.e., low-income single mothers and any efficacy information in using ecotherapy. The

last question attempted to inquire about any topic of interest that they may want to share about themselves that may have been missed.

Other questions in the protocol were attempts to discover whether, to what extent, and in what ways the description of the lives of single mothers in the literature review were culture-bound (see Spradley, 1979). Did these studies in the literature review represent the current lived experiences of single mothers? For example, were they viewing single mothers as deprived based on a normalized view of parenting as being a two-parent undertaking?

General commonsense topics were asked that generated self-reported descriptions of their lives, such as their relationship with the father, employment status, health insurance, mental health services, housing, finances, extended family, legal system, culture and ethnicity effects, and stressors. Questions about the participant's exposure and relationship to nature were also present. Other questions measured informally addressed their possible stress level and other mental health cues to analyze the possible effect of nature on the stress level and other qualities of the lives of the study participants.

Recruitment Criteria and Data Collection

The criteria for selection of participants were that she identified as a woman of any age who had birthed or had legal custody of a child of any age, who was legally single, not pregnant, and whose yearly income was low income and/or below the poverty line. When a prospective recruit asked if she could participate even though her son was over 18 and no longer living with her, she was included after consulting with my Antioch research advisor overseeing this project. Since the birth of her son, she had remained a single mother and had often been in and was currently having financial hardship. When one participant asked if she could be included even though she made approximately \$25,000 which is over the \$16,460 poverty line with one child, it

was decided that this amount was indeed still very low to take care of herself and her four-year-old son in Flagstaff, which she confirmed in the interview.

Other criteria were that they enjoyed and regularly sought out spending time in or around nature of some sort and were asked several questions about it (see Appendix A). As a research preference, it was assumed that an in-person interview would be far more informative than phone interviews, and this was the preference during recruitment. No one who contacted me about volunteering as a research participant was turned down because all interviewed women stated that they had children, were in poverty, and that they were not living with, or did not currently have a romantic partner.

Because research in this population indicated that it was likely that these women may be under distress or stressed, I initially spoke with eight out of the nine participants on the phone briefly (and in one case, we texted), to make sure they were members of the population that I was studying, to schedule a one-on-one interview at a place where they would like to meet, and to ensure (as much as a short conversation over the phone could suffice) that they would likely be emotionally strong enough to discuss a possibly difficult personal history, if they decided to do so, without possibly triggering distressing emotional deregulation. During my initial conversations with participants, I also tried to build rapport by telling prospective participants a little about myself, where I was in my doctoral program, where I was from, and so forth, so that the subsequent interview conversation could go smoothly and comfortably for the participant. I also asked each participant if they had a place where they would like to meet and interview. Preferences that the participants suggested for meeting places appeared reflective of these women's circumstances: MacDonald's, a park, a retail place of work, and their favorite coffee

shop. I was also able to reserve space at the central Flagstaff Public Library and a community room at a natural food store as well.

Not including pregnant women as participants was due to the added precautions and resources that must be taken and utilized to include a potentially medically and emotionally vulnerable pregnant women as a subject in a research study and the limited resources of this project. Regarding a participant cohabiting with an intimate partner, she could not have been included in this study because of the psychosocial and economic differences of this situation compared to single mothers living alone with their children, and possibly other persons. No prospective participants who contacted the researcher about being included in this project reported that they were pregnant or were living with romantic partners.

Advertisements for participants were posted in the states of Arizona and California. To recruit participants, a flyer was created and approved by the Antioch Institutional Research Board (IRB) during the IRB approval process to advertise for participants. A Spanish translation of the flyer was also created in hopes to recruit Spanish-speaking participants, or other diverse low-income mothers. A Spanish interpreter whose mother was a low-income single mother volunteered to help interview participants. Unfortunately, no Spanish-speaking prospective participants contacted me to be included in this project.

At least 60 fliers were put up on community bulletin boards in grocery stores, coffee shops, restaurants, libraries, domestic violence shelters, medical health clinics, and laundry mats, in the towns of Flagstaff, Oak Creek, and Sedona, Arizona in places where low income mothers could have seen them. A brief Craigslist advertisement was also created under the community volunteering section in the cities of Flagstaff, Phoenix, Tucson, Los Angeles, and San Francisco.

Recruitment of research participants took place from November 2018 to February 2019. Three participants were interviewed on the phone; the rest, in person. The identity of the interviewees were kept confidential. All recruited participants were living in the state of Arizona, and eight out of nine participants were recruited from the rural areas of Flagstaff, Sedona, and Overgaard, Arizona. One participant responded to Craig's List advertisements and lived in Tucson, Arizona. Six of the nine participants lived in Flagstaff, Arizona, which is a small mountain town. The ages of the participants were from 28 to 58, and the average age of the participants was 39. The actual ages were 28, 30, 31, 35, 37, 38, 43, 51, and 58, which is also the order in which they were interviewed.

Participants were compensated for their participation with \$10 and a list of general health, housing, safety, and educational resources created in MS Word for the city in which the participants lived. Three community resource lists were created for the cities Flagstaff, Sedona, and Tucson, Arizona, where eight out of the nine participants lived. One participant who said she was glad that she could take part in the study lived in Overgaard, Arizona and said that she did not want the customized list of resources nor the \$10 compensation that the project offered for participating.

Case Selection and Analyses Methodology

Selection of participants utilized the following qualitative research methodologies: *influential, collective, and cross-case*. The case selection reflected an "influential" strategy in that "sometimes, the choice of a case is motivated solely by the need to check the assumptions behind some general model of causal relations" (Seawright & Garring, 2008, p. 303). The larger cross-case theoretical model being examined in this study was the possible mental health benefits of experiencing nature for this population. In this study, also nine participants "collectively" met

general targeted socioeconomic criteria: low income, not living with a partner, and single.

Another important and necessary selection criterion was that they reported that they regularly or in general in their life enjoy natural settings or elements either indoors or outdoors and found them to be therapeutic mentally. Lastly, cross-case analyses performed as part of this study gathered collective case knowledge and compared and contrasted this knowledge to produce new knowledge (Kahn & VanWynsberghe, 2008).

Another methodology used was ethnographical interviews and analyses tools. Spradley (1979) stated that a great deal of applying and using ethnography interviewing is to be able to “learn, hear, speak, think, and act in ways that are different. Rather than studying people, ethnography means to learn from people” (Spradley, 1979, p. 3). Therefore, the interviewer’s prewritten questions were loosely followed to develop a natural conversation between two equals. To every participant, I said “you’re welcome to ask me questions about myself and my life if you want, but what I’m here to do is to hear your story.”

The interview protocol (Appendix A) was developed to provide a forum in which the informant could freely and naturally divulge states of being, actions, and events in their lives without the interviewer interfering in some way with this process (e.g., being overly opinionated or acting scientific, self-righteous, or authoritative) which developed a friendly rapport with the participants. The protocol was intended to allow the participants to freely give their own description of their experiences while allowing the researcher to discover the meaning of actions and events in their lives (Spradley, 1979).

In this analysis, the ‘theoretical sampling’ that I performed by seeking to interview and analyze only low-income single mothers who enjoy nature was coupled with an analysis that does not range far from the actual words of the participants in the quest to hear their words and

find their meaning. This method was similar to Flick's (2014) description of a closeness to the data in qualitative work that allows the researcher to let the data guide the research. In this way, researchers do not navigate through the data every which way looking for excerpts for filling categories, but apply the principle of *sequentiality*... This means the material is analyzed from beginning to end and following its temporal development" (Flick, 2014; Wernet, 2014, and Toerien, 2016).

During the interviews, I used an I-Phone application called "Recorder" to audio record the interviews and then I transcribed them into Microsoft Word 2016. I grouped the transcribed data by protocol question and by coding the text by themes that were present other than the protocol question topics. The participant interviews were summarized, and general themes and findings were reported. Similarities and differences between the literature review and the interview data were summarized. Results, conclusions, newly discovered questions and hypothesizes, if applicable, were described. As the sole researcher in this qualitative research project, I also throughout this text I added sections that described my thoughts, feelings, and reactions to the participant narratives. In this way, I identified my own subjective experience as a researcher, as well as the subjective experiences of my research subjects, to identify any biases I may have as a researcher and to add greater meaning to this work.

Furthermore, an attempt was made to explain conclusions theoretically using existing theoretical and philosophical frameworks to add context and perspective to the conclusions of the study. Limitations of the study were also be included. Social, psychological, economic, and theoretical implications of the findings will be explored in the context of the ways that these research results may influence psychological treatment of these mothers by government planning

boards, social services, and others who are actively looking for ways to improve the lives of these families and lower overall poverty and mental illness in the United States.

Results

The research questions of this study were the following: (1) What are the current lived experiences of low-income single mothers in the United States; (2) What interventions or resources have been found to be helpful?; and (3) Does exposure to indoor or outdoor natural settings improve the mental health of low-income single mothers?

In this results section, I structured this narrative of my research results in the following way: first, I summarized the responses of the participants to each protocol question if they responded. Then I discussed other topics brought up by participants answering this question that had “popped” up in conversation and appeared to me to need “unpacking,” or appeared fraught with meaning where further discussion or analyses seemed warranted.

In all the interviews, the participants reported prominent themes. I identified these themes by the frequency in which it was brought up by participants, the vehemence of how it was spoken, its apparent truthfulness, and/or that the topic resonated as an important possible aspect of these women’s lives. These themes or topics could serve as talismans for further study of key known or unknown influencers in this population’s lives.

Question 1: What can you tell me about your life in general as a single woman with a child (or children) living on a small income?

Answers to the first grand tour question from the interview protocol (Appendix A) about how the participants were doing in general appeared to reveal how they were feeling about their life in the moment, and current events in their lives. Topics included excessive busyness in that “every chunk of time...accounted for in some way;” life as a musical performer--“I’m just an open book basically...I don’t mind talking;” and recent preschool grants that were greatly changing the lives of one mother and her child mostly for the better.

Another mother responded to the grand tour first question by talking about her life being homeless with a daughter in the forest--“I’ve been living on the road on and off my whole life.” One mother spoke of the time raising her son alone as filled with severe social discrimination against her as a single mother; another described the pain of poverty and not being able to finish college education or the difficulty of finishing in their status. One mother felt she was destined to have her two children because of her two unintentional pregnancies, though she and her partner had used birth control. Another mother described her stress from the strain of poverty in a relatively expensive university mountain town. One woman did not answer this question.

Summary and interpretation of findings. Overall, these women felt burdened by their status as low-income single mothers in the following ways:

- The overall stressful and burdensome “costs” of being the single supporting parent of four children were burdensome in terms of lack of personal time and rest.
- Overall, as a musician, songwriter, and part-time waitress, low-income single motherhood was “financially challenging and mentally de-stabilizing.”
- Positive change had recently occurred with one mother despite poverty and lack of time when public services assisted with educational and childcare expenses.
- A mother described the historical fact of her lifelong homelessness and now literally made her home in nature with a small child under five alone in camper in parks and forests.
- Emotional pain possibly caused by self-described isolation, shame, and social oppression was due in one mother’s view to overt gender and class discrimination and prejudice.

- One mother described the general mental and physical pain of poverty, such as loss of educational and vocational opportunities, and the problem of discrimination and stigma against single parents, and especially single mothers.
- Another mother described the general pain of poverty that she experienced through no fault of her own having used birth control and still having had two unintentional pregnancies, and now living in a small relatively expensive rural resort area with fewer opportunities to advance her education and income than in other areas.

Description of the Qualitative Research Modalities that Were Used

One mother responded to question one that she couldn't speak about other's experiences or make generalities about low income single mother life—that “it's different for a lot of people...but I guess...in the things that were helpful... knowing as early on as possible the importance of positive thinking and that our story is only what we say it is, and time determines what that story is.” This statement resonated with me as an articulation of a problem with attempting to study and come up with a “general” description of this population or even other groups of people, big or small, along with the fact of the uniqueness of all people.

This research attempts to solve this humanistic research quandary by using a hermeneutic and phenomenological approach (Laverty, 2003) to analyze these narratives. As this mother pointed out, a woman telling her story is “meaning-making,” and in hermeneutics, meaning-making and time produces “narrative,” which is also called “story” or “text (Glick, 2016).” Using a hermeneutic and phenomenological approach, truthful understanding of lived experiences can be achieved by analyzing the research subject's narrative of her lived experience and narratives of both the researcher and the research subjects' social, political, and historical

contexts. “Meaning is found as we are constructed by the world while at the same time, we are constructing this world from our own background and experiences” (Laverty, 2003). In other words, our environment affects us, as well as our background and experiences. My research modality acknowledges a subjective, socially constructed world where truth and understanding of human experience is found in research in exposition of the experiences, environments, and biases of both researcher and subject (Flick, 2016; Werner, 2016; Torien, 2016; Laverty, 2003).

This mother’s comment about the fruitfulness of “having a positive attitude” showed this participant’s possible bias in her describing her experience positively while still being truthful. I make this point in the context of Werner’s (2016) description of hermeneutical examination of “the differences, tensions, and even contradictions between intentions and the latent meaning of action” (Werner, 2016, p. 236).

Another mother had this to say about the benefits of having a positive attitude:

...living off student loans, racking up student loans [and living on public assistance], I eventually lost my home. We had that whole trial. It was an interesting experience for my son to really realize that material things weren’t as important as having each other and just getting through some hardships. I’m back to finding the little jobs. I’m trying to do things that bring me more joy cause even though I had a lot of experience in the banking industry, it wasn’t a passion of mine.

It is important to note that each of these women discussed positive thinking as part of their own efforts to manage their mental health. A theme of *material things not being as important as their mother-child relationships and being able to surmount hardships* was also present with several of these mothers. Both of these mothers in the course of becoming and being low-income single mothers were diagnosed with depression and anxiety (see the “Survival Strategies”) section. This positive thinking effort and more humanistic and less materialistic perspective were likely

parts of their own self-help intervention or possibly recommended as a positive psychology intervention by mental health providers.

When asked about the amount of stress she was feeling, the woman who lost her home responded with level “15” out of 1 to 10 and that she at one time suffered from post-partum depression. Another point about these woman’s stated strategy of *having and cultivating a positive attitude* is that throughout all these interviews, these women often spoke of *survival strategies* such as this that they used to help them cope with their situations. Identifying their survival strategies about what worked for them to persevere in their difficult situation was a pervasive theme throughout the interviews. It speaks to a kind of pragmatism that each woman appeared to have: to keep problem-solving continually, and to keep an eye on their mental as well as physical health and perspective when faced with their basic needs issues of food, housing, and work insecurity, as well as their huge responsibility to raise healthy children primarily on their own.

The theme of *discrimination against single women and against low-income single mothers* was brought up by two women in the very first open question of the interviews. This theme is prominent in the literature review discussed previously, and its prevalence as a topic in these interviews may indicate discrimination’s continued damaging pervasiveness among women in this population, as well as in the U.S. in general, since U.S. census studies continue to confirm that these research participants and other women and families at their economic level and social circumstances across the country are some of the poorest people and families in the U.S. (see “Introduction,” and “Literature Review”).

One mother had this to say in response to Question 1:

It’s hard. ‘Been at this as a single parent about 25 years. I’ve been at this awhile, and honestly, I’m no better off today than I was 25 years ago. In spite of even educating

myself (I do have a Bachelor's degree in Human Services), so even in spite of doing what I'm supposed to do to make our life better regardless of where we've lived or what I've done, I am no better off today as I was 25 years ago. I'm still on assistance. No matter what I try or what I do. [I have] two children, ages 25 and 15. One is still in the home. Just the 15-year-old is still in Flagstaff. It's just disappointing. It's frustrating and disappointing. It says something about society, I believe.

Later in this interview in response to Question 8 and my follow-up question about the way in which her employment may have been affected by being a single mother, she said,

Work hard, and you'll make it. That's not true in the American system anymore. Women in particular. We're still paid less than men. We still don't have an equal rights amendment. We're already behind the starting line big time...I've never tried to make my being a single a crutch of mine, and if you say single parent, other people frown, but it's easier to say single parent because there's less of a stigma than saying single mother.

Another mother had this to say when asked Question 1:

What was harder than the low income was the social reaction to a single mother. As far as a job, now they're not supposed to ask if you have children, or if not, if you're in your child-bearing years, but I've been asked all those things...But often times they won't hire a mother, especially a single mother with little children because they're afraid of the sick days...

On this same topic, she included this statement in her response to Question 2: "you can't be more villainized than being a single mother," she said. "People don't help single women. It's almost like we're a contagion. We're an embarrassment."

Thoughts and Feelings of the Researcher and Overall Possible Researcher Biases

I was deeply touched by both of the last two women's remarks when I interviewed them, as well as when I reviewed the text of their interviews. It brought up feelings of distress that I have about my own lack of property ownership and "normal" financial success and the fear that discrimination and "the glass ceiling" has had something to do with it over the years. I have two Masters' degrees—one in English/Creative Writing and the other in Clinical Psychology from University of New Mexico and Antioch University, Santa Barbara, respectively. I'm a 58-year-old doctoral student who is female and has felt discrimination because I am a woman in business,

work, and social circles. I am also a biracial White and Latina heterosexual women in this society. I have not experienced racism that I know of possibly because I was raised in White culture, my Latina race was hidden and not discussed in my family, and I appear to be White. My poverty as a student is possibly understandable logically, but I can empathize with these women having been a poor student now for six years. As a human being, I also cannot help but have compassion for these women I came to know as part of this study whose disappointment about lack of financial success and reported discrimination I felt in my life as well.

Prior to deciding to acquire my doctoral degree in Clinical Psychology (PsyD), I worked as a technical writer, business analyst, and project manager in high technology, and worked for three Fortune 500 companies in Southern California, and two federal agencies as a contractor. At this same time, I am a published poet. In my twenties, I was married at 25 and divorced at 30, and married and divorced again in my 40s—both time for irreconcilable differences and abuse issues. I have been single a total of 15 years out of my adult life, and I have seen and felt the discrimination against single women often, such as when I have applied for home mortgage loans, being or not being seated in restaurants, employment disadvantages and refusals to hire single women, and being excluded in social occasions with groups of couples. There have been incidents of aggression toward me being the only woman at the table. Now that I am middle-aged, finding work has become much harder. I feel an added ageism, as well as a general sexism that looks and feels sometimes like a cloud of patriarchy hovering over everything.

I already had a depth of experience before I began this feminist project in terms of the trials and tribulations of single women. Not having children was not so much a decision, but the failure to find a male partner with whom to have children and the knowledge that it would be too

difficult for me financially and emotionally to have a child on my own, despite having a life-long dream of raising children.

I believe in equality for all and have volunteered for equality and social justice initiatives throughout my life. Regarding my choice of this topic, people may wonder why I would have chosen this topic not being a mother myself. In my friendships during my 20s-40s, I had been in some cases the helpful friend to single mothers that were friends of mine and were struggling. I couldn't believe their struggles having to choose between wanting a good job and career and the large amounts of time, talent, and resources it took to achieve this, and trying to be the best mother you could be. It seemed so hard to do both without a second parent—so this was a choice I decided to avoid.

There was also the incident that happened in my distant family when I was 19. One of my close female relatives was a young mother with three young children all under the age of five years old in Los Angeles when her husband put a gun to her head during one of their fights. She divorced him, but the legal battles and her financial struggles seemed so difficult. Another female relative “rescued” her, and made sure she was able to find housing, assistance, and work. I do not think she and her three kids would have made it otherwise. I also saw what the stress and distress on her and her kids became: for example, one child became developmentally challenged, and she still supports him as a disabled adult. She did rise professionally, and despite a four-hour work commute every day, she has financial security, and her other children have become relatively successful adults.

To sum up my biases, I am a feminist and a biracial heterosexual woman, and I did bring to the study of this population a strong sense that these women I planned to study were often overtaxed, and that women in general, single women, and especially low-income women of color

were often targets of sexism and racism. However, I have tried throughout this project to bracket my views, and to genuinely be open to just what the existing research and interviews revealed about the lived experience of these participants. If they wanted to know my bias, I felt I had a duty to tell them, though I did not volunteer the information nor steer their views in any direction.

Question 2: Where are you from originally? What town do you currently live in?

Table 4 shows the places where participants said they currently reside, and whether they have been married. I did not reveal their places of origin and in some cases in the text, the town they lived in to protect the privacy of these women. Making some separate tables for different topics/data was also an effort to preserve privacy.

Table 4

City Where Participants Lived and Whether They Are Happy Living in Their Town in Their Situation as a Low-Income Single Mother

Residence	Current Type of Housing	Happy Living in Their Town?
Flagstaff, Arizona	Section 8 renter	Yes
Flagstaff, Arizona	Owns her home	No
Flagstaff, Arizona	Public Housing	Yes
Sedona, Arizona	Homeless in Camper	Yes
Overgaard, Arizona	Renting	No
Flagstaff, Arizona	Renting	Yes
Flagstaff, Arizona	Section 8 renter	No
Tucson, Arizona	Staying with her ex-husband	Yes
Flagstaff, Arizona	Staying with her employers	Yes

Several participants commented on the theme of *small-town living*. One mother who is the sole financial provider for her family appreciated her small town because the business license that she was able to buy to start her housecleaning business was only \$25 at the time. In their small rural

town, they were able to find a nice campground when they first came to town after her violent, physically abusive husband of 17 years abandoned her and her four children approximately eight years ago: "...we had a nice facility there [at the campground], good showers, and they had a nice laundry room. The kids have excellent memories of making our valentines at big tables." Since her bitter expensive divorce, her ex-husband returned to the town where they live and has now been homeless for two years and swore that she "would not get blood from a stone."

Yet another mother complained that it was a big mistake to think that getting out of the big city of Phoenix and moving to "Mayberry" would help her keep her son out of trouble and in school. She said the area she moved to turned out to be poverty stricken which made it difficult to leave: "[Childhood] drug use was really scary when I moved here, and there was all that kind of stuff. I was lucky because most of the kids here end up involved in that stuff. If people ask you if you should move to a small town and whether it would be better for us, say no!"

Another mother had difficulty in her small town getting quality health care for her child because "...I haven't been able to keep a doctor. All of my doctors keep leaving." Also, of all the places she has lived, she felt her small town was the worst socially and financially, but she felt no point in moving.

One single mother had this to say about her small town and her poverty: "It's definitely hard to make it here. The locals call it 'poverty with a view', and it's kind of true. Unfortunately, even if you're doing okay. I make almost \$18 an hour so I get paid pretty well. I just work 30 hours a week."

In summary, six out of nine women felt good about where they lived, but the other three women felt disadvantaged by their small rural town. Habarth, Graham-Bermann, & Bermann (2009, p. 229) found that "low-income women's coping is linked to the availability of resources

in their communities.” Several of the participants were on public assistance for housing, food stamps, Arizona AHCCCS, which provides full free health care with affordable deductibles for themselves and their children. Most of these women also appeared to have sought out any other types of public assistance they could find: “I have a lot of resources around me and try to take advantage of that as best as I can,” one mother said.

Selecting a town or city to live in that provides enough social services for single mothers could be a crucial step for these women. Overall however, as one of the mothers found out, preconceptions about the suitability of a place could be found to be mistaken after a family relocates, and then lack of mobility due to poverty could make it seem impossible to move to a better environment for themselves.

Question 3: How much education have you received (degrees, training?)

Table 5 summarizes data concerning the age, marriage, children, education, and health of the participants.

Table 5

Statistics of Mother's Age, Children, Education, and Health Issues in Participant Families

Participant	Mother's Age	Ever Married?	Children	Education	Reported Family Health Issues
1	43	Once for 17 years	Four children ages 12, 13, 15, 17	Community college, private classes	One younger child-autism and type 1 diabetes. Mother has an auto-immune disorder.
2	30	Once	One son, age 4	Bachelor of Arts in Theater and Photography	Mother has depression and had post-partum mania, and has seen several therapists
3	31	No	One child, age 6	High school graduate, college classes	Mother has PTSD from childhood trauma and Bipolar 2, has attempted

Participant	Mother's Age	Ever Married?	Children	Education	Reported Family Health Issues
4	28	No	One child, age 2	Some high school	suicide twice, is currently stable with family, therapy, and prior in-patient support. Polycystic Ovary Syndrome (PCOS) All healthy
5	58	No	One son in his early 20s	High school graduate	Son suffered an assault growing up, but is healthy; mother has several challenging physical ailments
6	35	No	Two children ages 10 and 11	Associate's degree in General Studies	Mother has vertigo
7	51	Once	Two children ages 15 and 25	Bachelor's degree in Human Services	Younger son has a traumatic brain injury and chronic pain from a car accident
8	38	Twice	Three children ages 10, 12, and 20	Associate's degree in Occupation Science with an emphasis in Respiratory Science and extra credits	Mother diagnosed with depression and anxiety with memory problems, but has improved
9	37	No	One child age 10	Associate's degrees in General Studies and Sign Language	Mother has Temporomandibular Joint Dysfunction (TMJ), depression, and anxiety; high stress level—15 out of 1-10

One of the mothers who said she struggled with mental illness and her “15” stress level out of 1-10 and who also used positive thinking to help her had this to say about her education:

Nowadays, if you don't have a college degree, a high school diploma doesn't get you very far...I had been in the banking industry pretty much since high school. It was a great job up from teller to assistant manager but I still hit that glass ceiling where I didn't have a bachelor's degree so I couldn't go up the ladder. So anyways, I was working for a bank in Sedona, and it was shut down by the feds [during the recent great recession], and a bunch of us got laid off. Here I was, my son was about two years old at the time with no job. That was kind of a freak out. I just instantly buckled down and got on AXCCCS, food stamps, and made sure that I qualified, I made a little money from losing my job. Anyways, while I was trying to figure it all out, I decided to go back to school. I went to the community college here in Flagstaff, Coconino College, and got a general Associate's degree as well as an associate's degree in sign language. But, you know, that whole process was interesting too because here I was with a toddler going to school part-time working five part-time jobs and trying to manage it all. So it was an interesting experience. I realized I could do a lot more than I thought. So I was able to get all that done. So anyways, [my job in banking] wasn't a passion of mine. It was just something that I kind of fell into.

In her case, her disinterest in attending college earlier in life became restrictive when she realized that she needed a degree to be promoted at work and was also more vulnerable in times of economic crisis.

Another mother who had a diagnosis of PTSD, other mental challenges, and a physical medical issue said about acquiring her education: “[I have] [s]ome college. I tried college three times, and every single time it was too overwhelming for me.” One mother said she had a “domestic” education. She was divorced, was abandoned with her four kids, and was the victim of domestic violence: “...My education was, you know, mostly I spent 10 years as a stay at home mom [before her divorce], a domestic education, mostly community college, theater and aviation...”

One woman said she did not like the small rural town she lived in and regretted her BA degree major in photography and theater. (This appeared to me to be due to her inability to find a good paying job in her small rural town.) Another mother did not receive much education because she and her sister were raised by her homeless mother in the forest, where she continues to live with her 2-yr-old daughter. In first grade, her teacher would come and pick her up from

their camp since her mother did not have a car. “Then we just started traveling again because it was the only way to survive or for my mom to survive. She was just selling her art and crafts.”

The woman who said single women are treated like a “contagion” said that she wished she had had more schooling. She was a high school graduate but also was extensively self-educated and had worked as a clinical exercise specialist, childbirth educator and labor attendant, and aerobic training. “I always wanted more education ... Maybe if you have a spouse, or more support, you can go to school and work and be a mother, but a single mother, it’s impossible because you can’t go to school, go to work, and be a mother.” Another mother with two elementary school aged children had an Associate’s degree and plans on going back to school in the fall to become a pregnancy consultant.

But perhaps it is a misnomer to presume that low-income single mothers cannot achieve degrees that they want, or if they could, they would be better off. Another mother complained that

“I do have a Bachelor’s degree in Human Services, so even in spite of doing what I’m supposed to do to make our life better regardless of where we’ve lived or what I’ve done, I am no better off today as I was 25 years ago. I’m still on assistance. No matter what I try or what I do.”

This research showed that the varying levels of success that these women had acquiring education to better the lives of their families did not appear at the time of this research to guarantee that they and their families would be lifted out of poverty. In some cases, it appeared that it may have helped them acquire work that they liked. One of these mothers with a Bachelor’s degree said that she could not have a full-time job and raise her son, so she rented out a room in her home using Airbnb and worked part-time in an art gallery. She was pursuing a writing career that she clearly loved. Working in the gallery part-time allowed her to work on

her writing when there weren't customers. She complained that the pay was close to minimum wage without commission. She also was one of the mothers who was not happy in her town.

Reviewing Table 5 and the mothers' comments about their education, it appears that a post-secondary and in one case even a secondary education is an insurmountable challenge for some of these women economically, mentally, or timewise. At one end of the spectrum, the young homeless mother who said she had "little education" appeared to live semi-comfortably and hygienically in her camper with her toddler.

Others were successful at chipping away at their undergraduate application a little at a time first acquiring an Associate's degree at community college level. Two women had earned their Bachelor's degrees, but both women said that their degrees did not help them out of their financial slump.

Recent findings by Gault, Milli, and Cruse (2018) found that "just 13 percent of single mothers with a bachelor's degree live in poverty compared with 62 percent of single mothers with less than a high school diploma." The two women with their bachelor's degrees were part of the 38% of women with degrees who are in poverty. The participant who had "some education" were part of most of this population who remain at this low economic level without completing their basic education.

One possibility may be involved in the difficulty that these women with undergraduate degrees had rising above poverty: They live in Flagstaff, which is a university town. Therefore, there may be greater economic pressure with a larger amount of college graduates competing within a limited economic base for jobs. With a Flagstaff population of about 70,000, about 30,000 of the population of this town is related in some way to Northern Arizona University.

The other 51-year-old mother with a Bachelor's degree had been living in poverty for 25 years saw her poverty as endemic to the values of people in the U.S.: "I think we should look at

some other countries like Sweden or Norway or Denmark, and see how they take care of their single mothers and what they do because their society is set up a little different and a little more caring...”

Question 4: How many children do you have? What age are they? Do you and your family have any health issues that you feel comfortable sharing with me about?

Table 5 lists children data and family health issues. The most surprising point in this table was that the only family that reported that they were completely healthy among the nine participants was the woman living alone with her toddler in a camper in the forest, who also did not finish high school. She said that she works only three hours a day housecleaning where she can take her daughter. The rest of the time, she spends mostly outdoors in rural national forest areas. Comparing this mother to the two mothers with undergraduate degrees, one teenage child had a TBI and required the mother to stay with him while she searched for a neurologist and pain doctor. The other mother had been helped recently indirectly when her mother died, and she inherited her family’s house in town. She worked three jobs and said she occasionally suffered from depression as well as financial distress. The homeless mother did live in a different town with a warmer climate about one hour away from the other two mothers, who lived in Flagstaff, a mountain town that is cold in the winter. As described in the literature review, studies show that access to nature may have a profound positive effect on mental and physical health.

Question 5: If you feel comfortable sharing, have you ever been married? How many times?

Table 5 shows that four women had never married, four women had married once, and one had been married twice. There were few, if any, descriptions of marriages; mainly divorces—some grueling, some civil, and some women did not want to discuss the topic.

- The mother whose mother had recently died with a Bachelor's degree and who was a writer worked at an art gallery, worked at her local newspaper, and ran an Airbnb. She was married once and said, "He wanted to party and go to strip clubs, and I'm like at home buying furniture." She was married at 20 and went overseas with her husband when he was in the military. She described parties with other couples with excessive alcohol, not fitting in, and she and her husband being two very different people being a huge part of their parting after three years. He was not the father of her child, and jokingly referred to her son as a "divorce baby" because she became pregnant while she was dating shortly after her divorce.
- One woman who had been married for 17 years with four children was the victim of domestic violence. "I had no control over anything...it felt like the director walked off the set [when her husband abandoned her and her children]." She described her marriage as having ended five years before she filed, and then the divorce took another five years because her ex-husband fought it. The cost of her divorce was approximately \$14,000.
- The mother who had a BA in Human Services and had two children was married once 16 years ago: He was an "absent parent." "There's a nonexistent relationship...I'd rather he wouldn't be but it's all because of his doing that it is right now...abandoned the family, but that's okay (laughs). They were separated after four years. He was the father of her youngest child, who is now suffering from the TBI from the car accident and is not in touch with the family.
- The mother with three children who saw every low-income mother's story as different and had been married twice reported that she currently lived on her ex-husband's couch because of her memory disability and lack of income, and that she felt supported by him.

It was sad that this last mother is grateful for her ex-husband's support and help, but the reality of temporary housing sleeping on a living room couch while trying to raise her three children was a difficult situation that she was attempting to cope with until she could find help or work so she could be in a better situation.

Another major theme present in these interviews was the *difficulty of divorces and custody agreements*. One mother who had suffered from domestic violence said her husband had made several unsubstantiated reports to Child Protective Services (CPS) and the sheriff's office, and they found everything to be false. The musician mother with PTSD said "...the single mother life is honestly dealing with the hell-hole that is her dad who wants to put his toe in the water and nothing else.

Questions 6 and 7: If you are comfortable talking about it, what is your relationship with the child or your children's father like? Do you believe the relationship (or lack of relationship) with the father of your child/children affect(s) you and how you parent? How? In what ways? Can you give me an example?

Three of the participants and their children have some kind of relationship with the father of their children. The rest did not.

- One woman who had been married for 17 years and been the victim of domestic violence said that her relationship with her children's father was bad. She won custody and most everything she wanted in the divorce since her husband had obviously lied to protective services about her. He saw some of her children who want a parent visit about 50 times a year. He was homeless and did not support the family at all, giving a considerable burden to this mother of four. She began and runs her own housekeeping service in town.

- The musician mother with PTSD and other mental issues was possibly going to court soon with the father of her child (they never married). She regretted telling the father that he was the father because they have poor rapport, and she felt like he deliberately interfered in her and her family's upbringing of her child. She described her relationship with him as "a big hurdle in my experience, and it's always like, 'Man, I wish you'd just go away,'" but he's here...I still don't understand what he's fighting for...I feel like my job now is not to bash talk him in front of her, with her, or to her...It's been honestly hell."
- The mother who recommended positive thinking with three children living in a somewhat larger town than the other mothers said that the fathers of her children were "good fathers, good relationships all around."

An overall theme appeared in responses to this question: *wanting to be the only parent*. It is understandable that those mothers who were in vicious disputes with the fathers of their children would have this desire. In several cases among the interviewed mothers, they said they wished they had not told the father that the baby was his. This points to the difficulty in raising children in a peaceful, loving home under these circumstances. Though these women all are heads of households, often the father still is involved in parenting, but the inability to get along with each other was still present and causes these women distress.

Question 8: Would it be okay with you to talk about your employment status? Part time?

Full time? Work from home? Unemployed? Are you happy with your employment status?

In what ways, if any, does being a single mother affect your employment status? How about having low income? Do you think this affects your employment, and if so, in what ways?

All but one mother who was staying with her ex-husband and raising her three children were employed:

- One mother supported herself and four children by starting her own housekeeping business after her husband abandoned her and her four kids. Her youngest child did not need to come with her to work anymore. She also was currently homeschooling two of her children.
- The mother whose mother had died recently worked as a creative nonfiction writer for the Arizona Sun, worked part time at an art gallery, and rented out a room in her house to Airbnb. She felt neutral about the Airbnb because she had to work at home rather than play with her son often, and she wished her temporary house guests were more friendly and not just in and out.
- One mother with PTSD and other mental illness said, “I’ve been performing [music in bands] for a long time...I can talk about the most painful, hard [things] and I can get it out then because I’m singing and playing.” She had also worked as a waitress at times.
- The mother who lived in her camper worked as an Airbnb housekeeper. She found it ideal in many ways because she can take her toddler with her to jobs, and work at her own pace. She appeared proud that she supports herself and her child. Her expenses were small, and she made enough money to live on. She did not report any public assistance. “At the most I work three hours a day, and it’s totally on my terms.”

- A mother who lately has been struggling with vertigo, said “I’ve always worked. I’ve always supported my family.’ She works as a pregnancy consultant having been at 26 births and has been working in this job for almost 10 years. She felt that her job was “definitely” what she should be doing.
- The mother who felt stuck being low income the last 25 years had a part-time job she liked providing in-home health care with a flexible schedule and friendly employer, who could work around her needing to be with her son with chronic pain from their car accident. “I’m always behind [timing-wise and financially] whatever I try to do...It’s a domino effect when you have limited resources.
- Another mother and her child lived with an elderly couple and was their caretaker, which she found “fulfilling” and “rewarding.” Her clients are very appreciative of her and she appreciates it. “My new thing is to love what I do, so whatever silly little job I have now, I just try and have joy in it, and be an example of that to my son.” This was the woman who lost the home she owned during the recent Great Recession.

All but two mothers in this study worked part-time; one mother worked full-time, and one was unemployed. Most mothers said that part-time flexible work was the only way they could work and take care of their child being the primary caretaker and head of the household, and several of these participants enjoyed their work.

Damaske et al. (2016) found that low-income single mothers are at greater risk for poverty when they do not have a full-time job. In this light, it is ironic that the one parent who worked full-time was self-employed, and she still qualified for public assistance. Similarly to completing a college education, this study found that even if these mothers find a way to perform full-time work, they and their families are still at risk for being poor. These part-time and

unemployed mothers did say that they found themselves sacrificing income to do their legal duty as primary caretakers of their children. All these women were unable to manage the paid childcare they would require with a full-time job working for others. It is also possible that even with a full-time job, as in the case of the domestic violence victim who was self-employed and mothering four children, they may continue to remain in poverty.

On a more positive note, Airbnb work was helping to support two of these women, and three of these mothers found housekeeping in general to be good full or part-time work for them. They reported that it was flexible and on their own terms, which was needed to both be able to work and at the same time watch over their children. They reported that they had been successful at it primarily because they could be with their children while working.

Question 9: If you feel like talking about it, what has your experience regarding housing?

Is it or has it been stable?

Table 4 lists the types of housing these families lived in. Four of these women currently felt that their housing was unstable: the woman living on the land with her toddler, the housekeeper mother with Section 8 housing, the woman with three children staying with her ex-husband, and the caretaker mom. The rest of the women felt that their housing was currently stable.

- One woman had her own home that she inherited when her mother died last year, where she rents out an Airbnb room, aside from her other two jobs.
- One woman lived in her camper, which was a struggle, since she said she was harassed by forest service people, and other people harassed her at least once a week about living without a permanent home, “With a house comes all this rent and all these other things, electricity and whatever. I got it all there (in her

camper) ...it's how people treat you when you're living in that thing. I'm 'an irresponsible, good-for-nothing person that that lives in their car'."

- Another example of this stigma and discrimination against low-income single mothers was the woman who fled her marriage and was a victim of domestic violence: "The property managers, most of them, treated me horribly...'We don't deal with Section 8ers...You tell them you have a housing voucher and they kick you out. Slam the door...'"
- The pregnancy consultant who lived in her hometown felt her housing had been stable and hoped to buy a home someday. Though she had to move quite a bit in her town where she grew up since she rents, she felt her housing has been overall stable.
- Though another mother felt good about the health and happiness of her children and the good relationships she has in her life, she was "sofa surfing" on her ex-husband's.
- Another woman lived with her employers while caretaking for them.

My initial reaction to these women's saying they felt their housing was stable was surprise.

There appeared to me to be a disconnect in that many of these women were forced to move several times in the last decade and yet they felt as if their housing was currently stable.

Frederick, Chwalek, Huges, Karabanow & Kidd (2014) define "stable housing" for the general population as "the extent to which an individual's customary access to housing of reasonable quality is secure." Eight of these nine mothers could have had housing insecurity based on Frederick et al.'s criteria and participant interview data. Among many criteria for assessing stable housing, Frederick et al. stressed the immense amount of importance public

assistance and social support currently has on stabilizing at-risk groups. Six of the nine participants were currently receiving public assistance.

Frederick et al. (2014) also found that the most effective way to measure housing stability in the general population was to use the following factors: type of housing, recent housing history, length of time in current residence, financial status, education and employment status, drug abuse, legal status, and subjective assessments of stability and housing satisfaction. These factors could be used in assessing housing security of single mothers, and these assessment factors could be used in mental health interventions to help boost housing security. None of the mothers I interviewed reported drug abuse, but all other listed factors in general point to housing insecurity factors in approximately eight of the nine mothers that participated.

An overall theme that came up in responses to the housing question was the issue of *childcare*. Only one of the participants had a full-time job, and she was self-employed, which would help with flexibility, not needing outside childcare, and carving out time for the homeschooling she performed with two of her children. None of these mothers probably could pay for childcare, and several of them had parents in town that helped with this. It appeared to be a “Catch 22”—they can’t work because they can’t afford childcare, and they can’t afford childcare, because they don’t have full-time employment.

Many of them indicated that caring for their children was the joy in their life: for example, the writer mother said this about her son:

I feel like I lucked out a little bit. I know that I’m a lot more fortunate than a lot of other single moms for many reasons...I feel like we have a rare relationship in that it’s incredibly bonded...the bad days, it doesn’t seem to railroad me, with a child.

Therefore, caring for their children themselves and having family members nearby to help has been their only and possibly their best option. Because of this love and duty to their children,

they chose motherhood and childcare, which meant, in all cases without possibly their knowing it, a life of financial struggle, and in some cases, emotional and medical issues possibly due to distress.

Question 10: If you feel okay talking about it, what is your experience regarding finances?

It seemed a little redundant to ask the participants a question about finances, since they are low income as a group. All these women complained of the difficulty being in this financial situation. Three of these women came from impoverished families growing up. One mother said, “Four kids is a lot. It turned out to be. Debt grows rapidly...I was invited to a wedding last week and didn’t get to go. Financially and physically didn’t get to go.” Another mother who now owns her own house still said it’s a constant struggle. “I think I had \$400 in overdraft fees last year.” One mother lived day to day on her Airbnb cleaning, but has no savings or buffer if, for instance, her camper breaks down. Another mother said, “I’m still on assistance no matter what I try to do.” The woman who felt deep discrimination as a single mom said, “I couldn’t offer him [her son] what I wished I could. Without telling the income, there were things I wanted to do that I couldn’t do with him. Some years it was really slim.”

The woman with three children said this humble statement about not having money:

Finances have been tough in the past because I was probably responsible for me not being able to deal with money and it’s an actual skill. I was raised on welfare as a child. I never experienced my mom being off of welfare, so I grew up like that. Like I said I had a good paying job. It didn’t last for very long, but long enough to teach me a lesson. That’s not what’s really important.

The caretaking mother asked me about her finances: “What would help? What would it take to get me out of this? You need more money to make more money kind of thing... I really don’t know the answer to that.” The musician mother said she was frustrated, like the oldest mother, that society did not recognize the huge importance of supporting low-income single mothers: “...I think it’s interesting when you go somewhere and they say, “Are you a student?

Are you a veteran? Are you over a certain age, 'cause we have discounts', and I'll tell them...'I'm a single mom. You got any discounts for that?' 'Cause that would make sense."

Effects of Having Low Income

Another overall theme was *the effects of having low income*. The following is a summary of the responses to Question 10 on the effects of this status: debt, no time or money to do things they want to do, late fees, no financial safety net for emergencies and other unplanned expenses, an inability to find a way out of poverty, the sadness about not being able to give more to their children, and feeling neglected and ignored by society.

Within this overall adverse situation, these apparent survivors, not thrivers, articulated ways they have been able to find to look at their situation in a positive light, or a silver lining, or as previously stated, live with more humanist and less materialistic values. The biracial woman living on the land with her daughter said,

I would tell everyone to raise their kid the way I do if I could. I think it's healthier for them. Maybe they don't have a huge playroom and their own bedroom with all the toys that they want, but she has me and she has everything she needs. I think that's what's important, honestly.

I believe that this young mother might possibly benefit from a somewhat more long-term point of view for the sake of her child, who may want to be able to make different housing and lifestyle choices than her mother or grandmother. This woman could also begin to shape her life to protect herself and her daughter more from risks associated from living her nomadic lifestyle, living week-to-week on her income, and general housing uncertainty. She did admit that she wished she had a more permanent home and appeared interested in my descriptions of public housing that was available for people like herself throughout the state of Arizona when she asked about it. Ironically, she did have a point in that she and her daughter were the only family without physical illness in either the mother or the child. Ultimately, her nontraditional lifestyle,

emotional and emergency support from family close by, the fact that she lived in the town in which she was raised and therefore knew it well, her nonmaterialistic ethic, positive attitude, and current physical and mental health outcomes all made her current housing situation seem understandable and for the most part, appropriate at least for the time being.

Other women, possibly out of sense of futility to improve the financial situation, appeared to have accepted their “lot” in life, and were enjoying parenthood and being able to spend enough time raising their children, and not having to sacrifice this parent time to work. Most mothers had tried working many jobs but succumbed to exhaustion and medical issues that prevented them from working full time any longer. Others were working their way up slowly with the help of their family (See Table 6).

Thoughts and Feelings About These Women’s Finances and Work

In my opinion having interviewed all these mothers, all these parents appeared to put caring for their children first in their lives, and were attempting to wrap work, social relationships, their education, and their career goals around this basic fact. Getting to know these women, I felt that they were defiantly fulfilling an essential role to raise their children and avoiding the negative consequences that they perceived would be the case if they did not prioritize the health and safety of their children first. For example, they rejected relationships that were harmful to themselves and/or their children. They also rejected employment that did not provide enough medical care or flexibility for them to care for themselves or have time to care for their children. They worked in positions that either paid well enough so that their child could have decent childcare or avoided employment that was hurtful to themselves to the extent that they could no longer be good mothers.

Table 6

Statistics of Participants Regarding Family, Legal System, Ethnic Background, Benefits/Obstacles/Stressors, and Support Network

Participant	Family/ Extended	Legal System	Ethnic Background	Benefits/Obstacles/ Biggest Stressors	Who supports you?
1	Big Italian family out of state/Father, Stepmother, therapist	Hostile Divorce	Italian	None/Finances, not having a partner or civil co-parent/money, housing, and food, her oldest son driving	God, father, therapist, aunt, family back East
2	None, mother died last year	Fear of Law Suite re: Son; child support	Caucasian	Not living with a man/work, recent death of her mother/finances	Large circle of support
3	Mother and Father, therapist	Custody Court Case	Caucasian	None reported/Father of child, mental struggle, poverty/shame	Mother and Father, large friend circle
4	Mother, stepdad, and sister	Expressed fear of the legal system	Turkish, Chaktau (Native American)	Living in nature, freedom, time, sole parent/not having a permanent home/money and social stigma about homelessness	Mother, stepdad, and sister
5	Siblings and relatives are out of state--not helpful	Lawsuit for assault on her son, and child support	Caucasian	Being able to raise her son in her own way/stigma, no higher education, lack of community support/being the only parent, when her son became sick	No one

6	Mother and stepfather, therapist,	n/a	Children are half-black; mother is Caucasian	Having great kids/poverty, no support from their father/finances	Parents and a large support circle
7	One parent and four siblings out of state	Divorce years ago	Caucasian	None/stigma, lack of father support, lack of governmental support/financial, social isolation	No one
8	Grandparents, fathers of children	n/a	Caucasian	One-on-one time with kids; final decision about health, religion, or education of children/illness, no work, poverty, being a single parent	Fathers of children/ large support circle
9	Parents, employer	n/a	Caucasian	Being able to raise her son in her own way/mental struggles, finances, recession, student loans/worrying about her son's wellbeing	Mother/ Jewish community

Question 11: If you wish to share about it, what is your experience regarding family and extended family?

Table 6 lists family members with whom the participants were in contact. The single mother who had been married for 17 years relied extensively on the moral support she received from her family who lived where she's from back in the eastern U.S.: "Aunts, uncles, cousins, big Italian families—my grandmother is 98. She's totally mentally there. It's amazing." She is not able to travel to see them, but they come out to visit her and her family, and they talk on the phone. Her father who lives in Tucson has also been a big help: "He's really been there for us."

The musician mother lived with her parents the first 4½ years. "I mean my parents were helping with night feedings and everything, which is what every new mother needs, right?...I was

just shut down.” Her parents continued to do what they can for her and her daughter. Though she had public housing now, she said she felt so anxious staying there that she still stayed with her parents off and on. Her neighbors in the public housing were loud and apparently unfriendly, and she appeared to fear them.

Three of the nine participants did not have family or were in touch with family but didn’t feel supported emotionally by them. Most of these women were not supported financially by family. Only one woman reported that she was completely isolated. She said she had raised her son, who was in his 20s, completely on her own. She was the mother who had felt so victimized by prejudice against her as a single mother. An essential survival strategy for this population appeared to be help and emotional support from family, as seen in Table 6.

Question 12: If you feel comfortable sharing about this, what is your experience regarding the legal system? In other words, have you had any legal issues that you feel like sharing with me about?

Table 6 lists legal issues that participants reported. An overall theme amongst participants was *divorce or custody legal struggles*. Four of these women had avoided involving the father of their children in their child’s upbringing. They said they were evading having the person who they had had sex with father their child. These fathers were not invited into the lives of these mothers and children. Some were willing to become involved in the raising of the child, but were told no, so they disappeared. These were unintentional pregnancies, and despite one or more people encouraging these mothers to have abortions, they wanted to have the child.

The other mothers had been or were currently involved in custody and child support legal battles. The mother who has four children felt that the legal system had been surprisingly supportive and protective of her through the worst of her custody and divorce battle: “thank God

they [child protective services] saw through it. People are actually good at their job.” Though another mother with early childhood PTSD never regretted not marrying the father of her child, and the ongoing custody disputes may have had a mental toll on her. Luckily, she had been feeling stronger lately possibly due to her public housing that she had been able to acquire last summer or other factors. She appeared to have primary custody of her daughter. It appeared that the dispute between her and the father of her daughter had become a tug-o-war with their child in the middle.

The women who had two fathers for her three children and believed in positive thinking appeared to have made strong friendships with her previous partners. They continue to help her as she struggles to gain independence after her last divorce and as she struggles with her current disabling memory issue, depression, and anxiety. Her resiliency despite her disabilities appeared to have been greatly improved by positive thinking, a strict diet based on her blood type, and her love of experiencing nature (see “Question 17” and Table 6). She shared that she had searched for solutions to her memory issue that had caused her to lose her good job, and she found the Blood Type diet improved her mental symptoms. She was attempting to rebuild her life searching for work but was still trying to be a full-time mother. The ex-husband appeared to be doing everything he could do to allow the mother of his children to continue to perform a significant part of the parenting as she healed.

My Thoughts and Feelings About the Theme of Divorce and Child Custody Disputes

When I was a teenager, a male relative and his wife divorced with two kids when the kids were young. I was profoundly influenced by the viciousness of their divorce and the years and years of lawsuits against each other. This divorce, and the other violent divorce on the other side of the family probably were a large influence on me in my teens. I never wanted to be in those

situations wounding my children in this dysfunctional tug-o-war that hurt everyone involved. But this fear and avoidance on my part in the end may have resulted in me being without children despite my deep desire to have them. I did not have “child centrality” in my child-bearing years, as these women may or may not have had (Edin and Kefalas, 2011). My career was my priority mostly for financial reasons at the time.

This divorce and custody tug o’ war that happens all too often reminds me of the tale of King Solomon when he threatened to cut the child of two disputing parents in two, and the most loving of the parents saved the child by giving the child to the other parent. This was King Solomon’s method to discover who really loved the child, and then awarded the child to the parent that loved the most. These days court psychologist perform psychological tests on the parents to determine who is most mentally fit to have custody, and these battles are expensive and grueling for these families. Mediation of bitter divorce and custody cases helps alleviate these disagreements and resolve differences. However, if one is not upper middle-class or wealthy, mediation may be impossible financially without public assistance, and some individuals refuse mediation.

Question 13: If you don’t mind talking about this, what is your ethnic background? To what extent do you believe that cultural background and ethnicity play a part in your experience as a single mother?

See Table 6 for the list of identified ethnicities. Eight of the women identified as White, and one woman identified as Turkish and Choctaw Native American. Wise (2008) described “Whiteness” in the U.S. as the dominant culture with common traits due to our race: advantage, privilege, and belonging. This affects who one knows and therefore their ability to rise socially and professionally in our culture. Whiteness can mark one as “a capable person with lots of

potential” instead of being seen as a racial stereotype like people of color, and the privilege of whiteness is like a life raft (Wise, 2008, p. 27).

These mothers dove into conversations about their own race and/or ethnicity and how it affected them. One woman who had been married a long time and who had suffered from domestic violence in her marriage talked about her European ethnicity and how her life choice was counterculture to the one she grew up in, being from an Italian family—“no matter how awful it was, you stayed in.”

The young woman and her daughter who lived on the land said that she was Turkish and Choctaw but had nothing to say about these influences. It did appear that her mother significantly influenced her daughter in her daughter’s homeless lifestyle, since this was the way she had grown up, as well as a possible Choctaw Native American influence. Currently, the Mississippi Band of Choctaw Indians (MBCI) live in East Central Mississippi (Bernette, 2015; Visenore, 2008). The MBCI have sustained their *survivance* by remaining on their homeland regardless of efforts to remove and destroy their culture. This term *survivance* from Visenore is attributed to Northern American indigenous people as their resilience in fending off colonization efforts to subjugate and delete them while using humor, courage, strength of spirit, and ingenuity when faced with adversity (Bernette, 2015; Visenore, 2008). I believed after meeting this young mother that she did have some of these qualities of *survivance*.

Another mother with the son suffering from chronic pain felt “lucky” and privileged as a White woman in her situation.

Holy cow! I’m lucky I’m a white woman because I would hate to be a black single parent or a Hispanic single parent because they’re already a race that is already discriminated against to begin with, and you add all the other factors in...I’m fortunate in a lot of ways. I don’t forget to look at that. Others don’t have access to education, exposure and access.

The mother with three children had the same consciousness about how people of color are often judged or mistreated in the U.S. “I’m from the South. And there’s...more Black people than White people...I saw people being judged...I try to be super nice to anyone that’s Black...it’s all about how you treat people...I don’t have to go out of my way to treat people well.” Another mother who had been a banker said that her son is biracial, and his father was Japanese and Italian. She called herself a European mutt and saw the influence of culture in her life during holiday times in terms of the positivity of family, holiday, good food, and “all those homey things.” Most of these women, despite their racial privilege, were beset with sexist and single mother stigmas that appeared to be weighing them down on the social and financial scale. At the same time, some saw their White privilege more definitely and voiced compassion for women of color.

Question 14: What benefits and/or obstacles have you noticed as a single mother?

The freedom to raise their children the ways they wished was a common theme when these mothers responded to this question in terms of benefits. Stressors included worrying about the safety and welfare of their children and the pressure of knowing that they were fully responsible for them. The oldest mother felt that the biggest obstacle to single motherhood was prejudice: “You can’t be more villainized than being a single mother. I changed it from ‘it takes a village to raise a child’. Utter bullshit. I changed it: It takes a village to raise a decent lynch mob.” Another obstacle she reported was not being able to take breaks knowing that if she had a dad who was partnering with her, he could take her daughter for an hour or so. Yet she laughed because when she had been given a break by a family member, she missed her daughter. Lastly, one mother said there were no benefits: “I don’t see too many. It’s always, always better to be in a team...I never really had it to be honest.”

Question 15: What have you observed to be your biggest stressors as a single mother?

See Table 6 for a list of the identified biggest stressor for these mothers. For most of these mothers, the biggest stressor amongst many stressors that these mothers shared was money and finances: for example, “How am I going to feed my kid?” or “It would be so nice to have extra income.” The mother who lives on the land with her toddler said, “I try to not let that worry me too much ‘cause I went so many times this summer without having any money and it all worked out. I’d go to the food banks or like I have friends and they would just help. If you trust, and something would always happen...I trust the universe.” Being the only parent was the biggest stressor for the oldest mother who felt victimized for being a single mother. The musician mother felt shame of her situation, and taking public housing assistance was her biggest stressor. Another mother saw providing her family with housing and food were her biggest stressors. Finally, one mother’s biggest stressor was her sole responsibility for protecting the health and safety of their children.

Question 16: Who do you rely on for support?

See Table 6 for a breakdown of who these mothers identified as their supporters in their life. Family and friends made living in this situation possible for most of these women. Two women, the woman with four children and the homeless woman also did express their belief that “God” or “the universe” was supporting and protecting them, and active in their survival.

Thoughts and Feelings about Sharing Time with Research Participants

Meeting and sharing time with each of these women and then realizing that their families or self-made friend communities were holding them and their children up in the world brought me to tears. This project has been difficult for me in that the suffering of these women seemed so tangible in the room, despite their upbeat, often seemingly courageous attitudes and laughter

when they talked about events that to me seemed horrific. Knowing that I felt I would not have had the support that I needed from family and friends brought up grief about not having the opportunity to have a baby. Being a single mother would have been too shaming and disempowering for me because of my conservative parents and competitive siblings. I also noticed the lack of help that my female relative received, whom I discussed earlier, when she divorced being able to rely only on one sister for financial and emotional support, as well as government assistance, despite that she had come from a large family with many siblings. These women's ability to receive the help that they need and needed on so many fronts to survive was an achievement. It would be helpful if counselors could reiterate this successful acquiring of support by this population to validate their hard work. Their resilient mothering also appeared to be of great value to their children and their community.

The discovery that two participants felt they had no support from anybody in their life put these women possibly at greater risk, but they may be exceptions to the research that points to social and family support being a critical protective factor for this population. Both women seemed strong and independent, and both had family outside the state that they were in contact with. However, one of the common negative effects of low-income single mothers is isolation (Kingman, 2013).

Survival Strategies of Participants

Survival strategies were things that these women said had made a big difference in their lives that they learned along their journeys:

- When one of the mothers had just been abandoned with her four children in a campground by her abusive husband with little money and no connections in town, she started asking people if she could clean their RVs to earn some extra

cash. She also asked people if they needed cleaning at her child's school, which was how her cleaning business "took off."

- This same mother's family bought her and her four children dinner at a nice restaurant in town: "It made my year!"
- Her grandfather always said, "Never say anything in anger, always take a walk if someone makes you mad or upset..." "
- She also quoted the movie character, Rocky: "It's not about how hard you can hit, but it's about how hard you can get hit and keep moving forward."
- Regarding the musician mother's vocation as a songwriter: "all that stuff inside us, it has to come out. Whatever it is, it can come up in destructive ways or it can come out in a way that's not destructive, and for me that's music."
- The oldest mother who had felt so much discrimination as a single mother in her life recommended having a dog.

It was the best safety measure. It allowed me to sleep through the night for the first time. When you're an only parent, you're alert to every sound, just like you're alert to every sound your baby makes. Having a dog, I was able to do everything better and faster knowing that they were on guard and I could be off duty and was so much safer.

- The maternity consultant mother having grown up in the town that she lived in had many friends with children. They exchange babysitting for each other and just trade off, so they save money.
- The caretaker mother said that she always had back up plan when taking care of her children. When her son was little, she remained in close contact with her supportive mother in case something happened to her, the mother could step in to take care of her grandson.

- Positive thinking appeared to be a sustaining factor reported by all participants.
- All the women said that being in a natural environment had been helpful to them in their lives.

Themes in the Narratives of Low-Income Single Mothers

The following themes were present in the narratives. These topics were common to many of these women. Further research into these areas would likely be fruitful in developing deeper understanding these women's lived experiences. Many of these women were currently or had been involved in *difficult divorces and custody disputes*, which were major stressors in their lives at the time. Most of these women lived in rural small towns, and they tended to be split as to the benefits and drawbacks of this fact (see Table 4). The *effects of low income* had been numerous and mostly negative for these women, though some mothers saw value in that they became less materialistic out of necessity.

Childcare was mainly provided by themselves, friends, and *supportive family*, which was another theme. Having childcare available, safe, and affordable may have uplifted them out of poverty. *Domestic violence* had also been a part of several of these women's lives, which could likely have been a determinant in these women becoming and remaining single. The majority of these women successfully took advantage of *public assistance for food and housing*. Many of these women were *divorced parents*. Their relationships with the father of their children varied greatly.

These women described bouts of *mental illness* that they said was due to the pressures and stresses of their situation and many had successfully used therapy to help them through their difficulties. Several of these women voiced *regrets* and *guilt* about some of the choices they had made, but no one stated that they regretted having children. Several women *wanted to be the*

only parent. Several of these women had had *unintended pregnancies.* Finally, *discrimination* toward them was brutal at times, and seemed forgotten other times.

Question 17: So, switching now to the topic of nature, you've told me you enjoy nature.

What types of nature to you enjoy? Do you have a favorite? How often? Do you bring your child/children? How do you think experiencing this nature affects you and your children?

See Table 7 for responses to Question 17 about their experience regarding natural settings.

Table 7

Statistics of Participants Regarding Question 17 about the Effects of Nature in Their Lives

Participant	Types of Nature You Enjoy	Favorite Type of Nature You Enjoy	How Often Do You Enjoy Nature	Do You Bring Your Children?	Effects of Nature on You and Your Children
1	Hiking during a hunt, taking a walk outside when you are upset, canoeing	Hiking	Didn't say	Yes	More calm
2	Hiking, nice view from living room window, houseplants, gardening	Hiking with her son or with a group	Not much	Yes	Feeling connected, exercise, sunshine
3	Indoor plants	Hiking (not since she became a mother)	Not much	n/a	Experiencing freedom, timelessness, and beauty
4	Living near forests and streams; looking at stars	Living in nature	All the time-homeless status living in camper	Yes	No TV, fresh air and sunshine, fosters imagination, feeling complete and free

Participant	Types of Nature You Enjoy	Favorite Type of Nature You Enjoy	How Often Do You Enjoy Nature	Do You Bring Your Children?	Effects of Nature on You and Your Children
5	Camping in woods, teaching life lessons with gardening, having a dog	Gardening	Didn't say	She did when he was young.	It's free, centering, lesson about life and death, pet dogs are protective
6	Skiing, hiking, watching the stars	Skiing	Moderately	Yes	uplifting emotionally, calming, relaxing,
7	Urban mountain trails, cross country skiing, natural views	Walking in nature	Regularly	No	Privacy, self-care, her pet makes her more present
8	All types: hiking, walking outside, owning a puppy	Walking, fishing, and kayaking	Often	Yes	Overall healing, creativity, inspires nature-related work,
9	Son likes outdoors, sports, climbing trees, parks,	Going to the park	Regularly	Yes	For both mom and son-- being outside, experiencing peace, nature as babysitter, relaxing, calming, helps anxiety and stress

Nature as a survival strategy for low-income single mothers. This research study found that this group of low-income single mothers used nature as a survival strategy in the past and/or currently to relieve depression, anxiety, stress, anger, and isolation and to feel satisfaction

and peace. Upon review of the data in Table 7 and the narratives of the responses of participants to this question, most participants felt that experiencing nature calmed them when they felt anxious, stressed, and angry. Several women commented that it was “free” and therefore a healthy and economic activity for family members. They also reported exercising in nature when they could. The mother with four children reported going for walks outside when she feels she might lose her temper reacting to the normal irritating antics of her teenage children. Since she lived in a rural town, she may be going for a walk in a semi-forested area or may have views of mountains and even mountain peaks. The fresh air, exercise, and being surrounded by nature calmed her so that she could appropriately discipline her children.

The oldest mother who had felt so discriminated against in her small town said this about the effects that nature had in her and her son’s life:

There’s something very centering about being out in nature. Here’s a simple example. When I was in NY in the old farmhouse, I was on an acre lot, ¼ acre was a vegetable garden, and grew everything you can possibly imagine, and I always say you can teach any life lesson in a garden. I would show him a pea pod with just two peas instead of three, and say, see, that’s not the way they all are, but it’s still good.

She used experiencing nature in her vegetable garden with her son as a place where she felt calmer or “centered.” She also could teach him life lessons about life and death, for example, as well as the goodness in their relationship despite not having an involved father.

For the caretaking mother with the stress level of “15” out of 1-10, taking her son to the park gives both child and parent a needed break, possibly an anxiety reliever, and a babysitter:

Luckily, I have a very active child... Basically, since he was very little, he loved to be outside, going to the park...so that serves two purposes for me, (1) it gets me outside...and gives me a break because nature becomes the babysitter. He’s just running around outside, burning energy, climbing trees, it’s just great...It calms me down. It gets me out of the house. When I’m in the house, all I can do is see the “to do” list...

There is a sense in all these mothers' words about the effects of nature in their lives that these families experiencing nature together may also increase their connection with each other because both parent and child benefitted, and it would follow that their relationship would be strengthened spending this transformative time together.

The writer mother who inherited her home recently from her deceased mother found that hiking, "keeping houseplants alive," a beautiful natural view out her window, and the sunshine through the windows may have helped her son develop, uplifted her mood, and reinforced her feelings of self-efficacy:

When he was little, we were hiking all the time and he learned to walk on these trails around here...For me it makes me feel like I belong... [She described the] really nice view and windows in our living room. He can see Canadian geese, elk, snow, so that's really nice...I wrote a one woman show about houseplants. I've been keeping them alive if they're inside. That's why I'm connected to them. I forget about them, and they still are flourishing...I guess it's one thing I feel like I can be successful at that I don't have to work at. I would feel really sad if they all died.

This mother reported several important points about the benefits of mothers being with children in nature. That her son learned to walk while they hiked may merit further research into the benefits of improving children's alacrity and physical skill and health being in nature. Wells & Evans (2003) found that children's negative response to stressful lives substantially improved with access to nature as a hypothesized buffer, but it is possible that the physical freedom of running free in the outdoors could also foster their physical development as well as mental resilience to stress.

Isolation is a common negative effect of being a single mother (Cairney et al., 2003). Two mothers felt that in nature they felt more like they "belonged," felt more "connected," and less alone. They could possibly have been fighting that isolated feeling of being a single mother.

These women acknowledged that exercise, houseplants, and sunshine combined with natural contexts had helped them fight depression, anxiety, and/or anger, and may have contributed to the development of their children at various times in their lives. These qualitative data concur with ecopsychology research (Reese & Myers, 2012; Knez, I., Ode Sang, Å., Gunnarsson, B., & Hedblom, M., 2018).

The musician mother also mentioned the feeling of “timelessness” that nature helped her feel. Feeling a lack of time was often a common complaint among these mothers who worked full-time, had several jobs, or several children. The mother with four children said “Every chunk of time is accounted for in some way. There’s just very little...if I’m not doing something, I get very nervous, okay, what did I forget.” The mother with PTSD said in response to Question 11 about family first responded, “Well, I don't have a lot of time available, you know...” even with the child’s father and parents in town helping her with childcare. The oldest mother recounted she was so busy and tired raising her newborn by herself despite family around that she wasn’t getting enough sleep: “...And there were times where I remember getting so sleep-deprived in NY, I was afraid to drive my car, and bundled him up in my coat, and walked to the store to get diapers.” Past research on the healthy effects of nature also found that natural settings provided a comforting sense of timelessness (Kines, Sang, Gunnarsson, & Hedblom, 2018; Laski, 1961; Williams & Harvey, 2001; Park, Furuya, Kasetani, Takayama, Kagawa, & Miyazaki, 2011; Russell, 2012) as this young mother reported.

The mother with three children said that her discoveries of her enjoyment of nature and its healing benefits had caused her to try and find work helping more people appreciate natural settings for their healing properties. She had begun a consulting business to promote how eating more naturally based on blood type and enjoying natural settings can resolve some common

mental illnesses that are typical to struggling single mothers. Another women whose teenage son currently had chronic pain spoke well of her rural town she lived in despite not being happy overall with her town: “Here, speaking of nature, you can walk down the street and go on an urban trail...I saw wild life, snakes, rabbits, foxes, deer...all the flowers...I don’t take music with me. My thoughts are my own...it’s my selfcare time.”

Figure 6 shows a proposed theoretical model summarizing participant comments about the effects of nature after exposure to a spectrum of natural setting experiences. Figure 7 (Frumkin et al., 2017) is a general proposed listing of natural setting experiences that could be realistically used as mental health interventions with this population. (Permission to reuse this table was received from the author.)

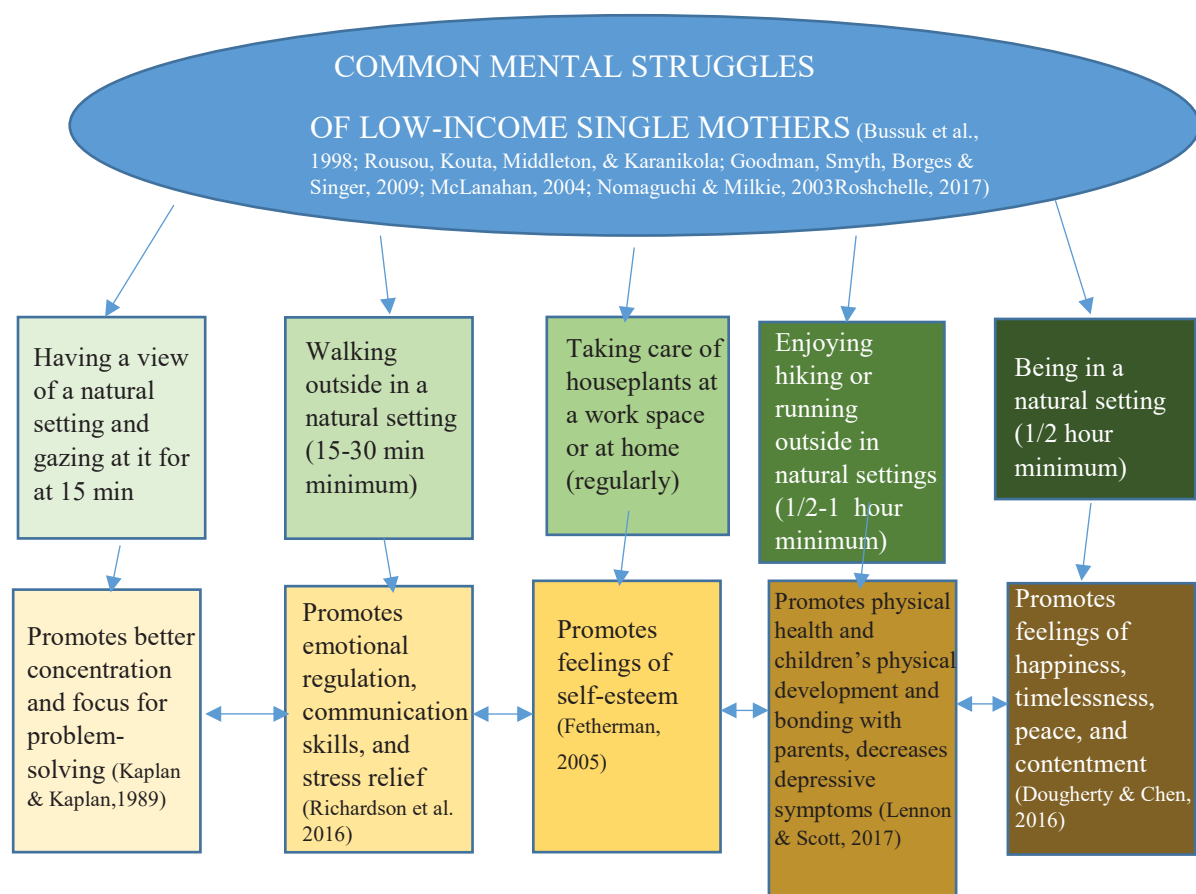


Figure 6. New model of the spectrum of self-care ecotherapy for low-income single mothers and their children. Note the success at any of the bottom boxes promotes the wellness factors in the other middle boxes above.

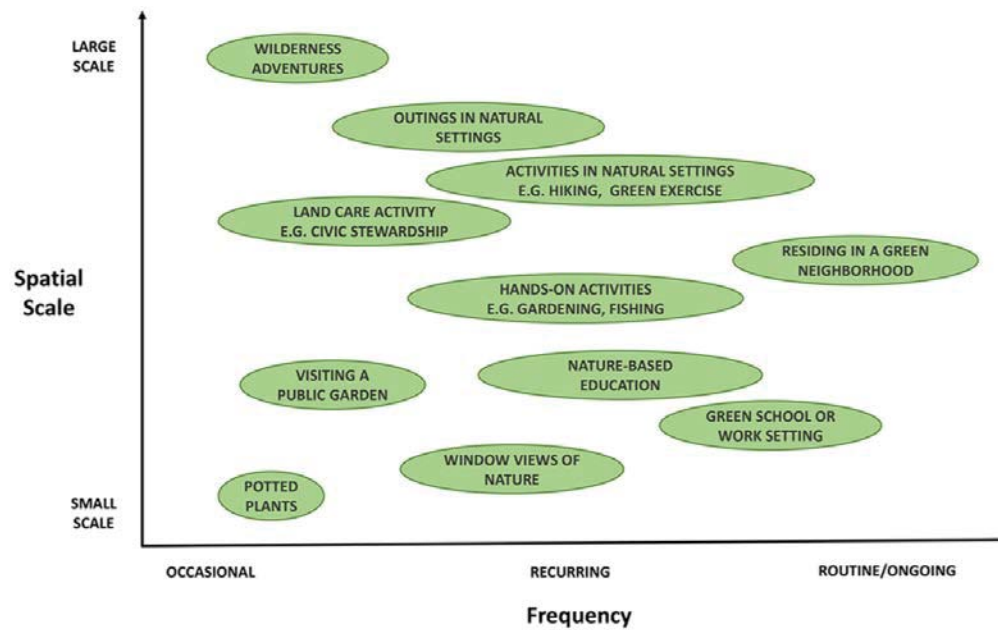


Figure 7. "A Spectrum of Forms of Nature Contact." This figure from Frumkin et al. (2017) shows potential amounts and frequency of types of nature contact. (Permission to reuse this figure was received from the author.)

Discussion and Conclusions

The violence of poverty in the U.S. despite its immense resources compared to most other countries in the world is not logical, but neither is the sexism, racism, and classism that fosters it, and the ignorance and hatred that creates it. This project's presentation of the lived experience of nine case studies of low-income single women highlights a probable deep divide in the economic, social, and mental and physical health circumstances between impoverished single mother families, and middle and wealthy U.S. families in general.

The results of this study and literature review suggest that the cumulative effects of food insufficiency, lack of physical safety, poor physical and/or mental health, financial distress, lack of daycare for full-time employment, social stigma, and discrimination toward low-income single mother populations are associated with the larger numbers of mental and physical illnesses and social isolation in these populations. Evidence for this view has been provided in Tables 5 and 6, research interview data, as well as in past research by Broussard et al., 2012; Rousou, Kouta, Middleton, & Karanikola; Goodman, Smyth, Borges & Singer, 2009; McLanahan, 2004; Nomaguchi & Milkie, 2003; Steele, 1997; and Dion & Earn, 1975.

The research study performed as part of this dissertation was partially a response to recommendations from ecopsychology researchers that more studies were needed on the effects of nature on the mental health of certain populations. The individuals who were interviewed for this study attempted to manage their physical and mental illnesses with self-care that included experiencing nature alone or with their children. They all attested to the healing properties of this natural survival strategy using various types of nature contact. Most of the types of nature that they experienced are shown in Figures 6 and 7, which are supported by research in ecopsychology to be healing for many people (for example, Frumkin et al., 2017; Reese &

Myers, 2012; Korpela, Borodulin, Neuvonen, Paronen, & Tyrväinen, 2014, Kaplan & Kaplan, 1989; Richardson, M., McEwan, K., Maratos, F., & Sheffield, D., 2016; Fetherman, 2005; Lennon & Scott, 2017; and Dougherty & Chen, 2016).

Limitations of the Research

Eight White women and one Biracial Turkish and Chaktao woman were participants in the qualitative research project. A significantly more diverse sample would have been more representative of the general population of low-income single mothers, since cultural percentages reported in a current study showed that in

African American female-headed families: Nearly 2 in 5 (39.9 percent) of African American female-headed families with children lived in poverty.

Hispanic female-headed families: More than 2 in 5 (41.9 percent) of Hispanic female-headed families with children lived in poverty.

Native American female-headed families: Nearly half (48.4 percent) of Native American female-headed families lived in poverty.

Asian female-headed families: Nearly 1 in 4 (24.2 percent) of Asian female-headed families lived in poverty.

White female-headed families: More than 1 in 4 (30.6 percent) white, non-Hispanic female-headed families lived in poverty (Tucker & Lowell (2016).

This dissertation studied low-income single mothers primarily within the dominant culture of the U.S. White citizens due to an inability to recruit these diverse groups to participate in this study during the recruitment time frame. Efforts were made to recruit and include diverse groups in this study. For example, a Spanish-language recruitment poster was created and distributed throughout the local community to recruit Latina research participants, and a volunteer Spanish interpreter was recruited to work with the interviewer.

As Tucker & Lowell (2016) found, a much larger percentage of diverse female-headed families (except Asian female-headed families) are poor. Their lived experience could be further burdened not only by singlism and prejudice against low-income single mothers but also by common discrimination within the U.S. against minority populations. Another subgroup of low-

income single mothers, LGBTQIA+ low-income single mothers, were also not studied in this dissertation due to the lack of ability to recruit members of this group to participate, as well as limited past research available about this group.

Funded research could have allowed expansion of the research sample used in this study and made it more inclusive by allowing for more time in the participant recruitment phase of this study to recruit diverse groups. In short, more research is recommended that would study the effects of ecopsychology on more diverse populations of low-income single mothers with inclusion of these groups in the research sample.

Cultural Factors in Successful Ecotherapy Interventions with Low-income Single Mothers

Individual differences and tastes amongst the general public may not be conducive to ecotherapy because some individuals may be too fearful or not interested. Individuals with severe allergies, or whose disability[ies] make access to the various types of nature contact more difficult, might not benefit therapeutically from ecotherapy self-care. However, people could try it once if they are struggling to see if it benefits them.

There may be instances where individuals may hold family-, friend-, or community-based negative biases against the benefits of nature. Some individuals may see nature as threatening, that nature should be made to service humankind, or may see no beauty in nature. Though this is an atypical response, these individuals would not likely be successful using ecotherapy.

Recommendations

Greater education of human resources personnel, school principals, teachers, medical and mental health professionals, public assistance policy makers and policy administrators, and “the man or woman on the street” on the importance of respecting low-income single mothers of any ethnicity would greatly aide these mothers who often feel isolated, too busy, or overlooked by others socially and professionally. Single women can also easily fall prey to bullying by

neighbors and random women and men almost anywhere in a town or city in the U.S. Among many benefits as shown in Figures 6 and 7, it is understandable why being in a natural setting could provide a simple escape from prejudice; nature does not discriminate by gender or race in humans. Nature could be a good equalizer, as well as peacemaker.

Greater education about self-care and ecotherapy and easier access to natural experiences and nature contact within cities and towns in urban and rural areas could aide in the health of all U.S. families, including low-income single mothers. Public lands administrators could educate people in the healthy mental and physical effects of being in nature on public lands.

Greater protection of the health and welfare of these families by their communities by whatever means necessary could possibly dramatically improve the overall high poverty rate in the U.S. More qualitative studies with larger samples could be used to discover deeper understanding of the causes of poverty within these populations in the form of gap analyses, risk assessments, and other methodologies to eradicate obstacles to preventing or rising above poverty.

Project participants recommended that more types of public or private assistance would be beneficial to them to help them become more economically successful and help their families become healthier overall. These suggestions included more career development programs targeting their particular needs, childcare, secure housing, and more healthy food sources.

Further development of mandatory green spaces in both urban and rural U.S. neighborhoods, especially with high populations of low-income families, could continue to improve the physical and mental health, parenting, physical and mental development, economic status, and the general wellbeing of U.S. families.

None of these women wanted to be seen or saw themselves as victims, but rather, as survivors. In their determination to survive without adequate means and to endure the sacrifices they made for their children, they surmounted or coped with various levels of success or failure to raise their children. Witnessing their children's successes and trials in their development and education brought both joy and heartache to all these women, which is part of the experience of all parents. These women who took part in this study took full responsibility for the health and welfare of their children. To their credit, their children were their top priority, like all responsible parents. Each woman that was interviewed had no regrets about having become a mother despite their economic and social difficulties. From all appearances, raising their children brought these mothers the greatest source of joy in their lives.

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Appendix A–Participant Interview Protocol

1. Thanks for agreeing to participate in this interview as part of my research project and dissertation. The purpose of my dissertation is to study the lived experience of single mothers with low income and to analyze the effects of nature as a possible psychotherapeutic tool in treating their mental health needs. For example, I will ask you generally about your life as a single mother, and about whether your mental health may be positively or negatively affected by your enjoyment of outdoor natural settings or decorative indoor elements, such as indoor plants and natural views out of windows.
2. But before we talk about the possible effects of nature in your life, what can you tell me about your life in general as a single woman with a child (or children) living on a small income?
3. Where are you from originally?
4. What town do you currently live in?
5. How much education have you received (degrees, training?)
6. How many children do you have?
 - a. What age are they?
7. Do you and your family have any health issues that you feel comfortable sharing with me about?
8. If you feel comfortable sharing, have you ever been married?
 - a. How many times?
9. If you are comfortable talking about it, what is your relationship with the child or your children's father like?

10. Do you believe this your relationship (or lack of relationship) with the father of your child/children affect(s) you and how you parent?
 - a. How? In what ways?
 - b. Can you give me an example?
11. Would it be okay with you to talk about your employment status?
 - a. Part time? Full time?
 - b. Work from home?
 - c. Unemployed?
 - d. Are you happy with your employment status?
 - e. In what ways, if any, does being a single mother affect your employment status? How about having low income?
 - f. Do you think this affects your employment, and if so, in what ways?
12. If you feel like talking about it, what has your experience regarding housing?
 - a. Is it or has it been stable?
13. If you feel okay talking about it, what is your experience regarding finances?
14. If you wish to share about this, what is your experience regarding family and extended family?
15. If you feel comfortable sharing about this, what is your experience regarding the legal system? In other words, have you had any legal issues that you feel like sharing with me about?
16. If you have don't mind talking about this, what is your ethnic background?
 - a. To what extent do you believe that cultural background and ethnicity play a part in your experience as a single mother?

17. What benefits and/or obstacles have you noticed as a single mother?
18. What have you observed to be your biggest stressors as a single mother?
19. Who do you rely on for support?
20. So, switching now to the topic of nature, you've told me you enjoy nature.
 - a. What types of nature do you enjoy?
 - b. Do you have a favorite?
 - c. How often?
 - d. Do you bring your child/children?
 - e. How do you think experiencing this nature affects you and your children?
21. Is there anything else you would like to share with me about your experience as a single mother?

Appendix B—Poster Used to Recruit Research Participants



**VOLUNTEER WANTED FOR A STUDY:
IF YOU ARE A LOW INCOME SINGLE MOTHER,
I WANT TO HEAR YOUR STORY!**

Hello! I am Suzanne L. Frost, and I am a doctoral student in clinical psychology at Antioch University, Santa Barbara. I am looking for a volunteer whom I can interview for about an hour about their life as a low income single mother. I am performing this study as part of my dissertation, which is an essential part my PsyD doctoral degree in clinical psychology. Your participation would be greatly appreciated, and your identity as a participant will remain confidential.

As a volunteer, you will be asked common sense questions about your experiences related to being a single mother with limited finances, as well as your experience and the positive effect of experiencing nature in your life. How has becoming a low income single mother affected you and your child or children? How and to what degree does experiencing nature regularly outdoors help you mentally? Does it help make you feel better? Indoor use of nature such as a beautiful window view or indoor plants are also considered possible sources of relief and renewal in this study.

Eligibility: (1) A volunteer will need to be a single, nonpregnant mother of any age and ethnicity who meets the federal criteria for being financially “impoverished.” (See <https://aspe.hhs.gov/poverty-guidelines>.) (2) They will have at least one of their own children under the age of 18 living with them. (3) The volunteer will also appreciate and regularly experience nature in their life.

Benefits: Although you may not directly benefit from this study, this research may ultimately discover valuable, not yet known information and deeper understanding of the mental, physical, and societal strengths and struggles of women such as yourself. It is the hope that this research may become useful as an aide to mental and medical health providers as well as public and private policy makers to improve the health and welfare of financially distressed single mothers. This study also may deepen clinical knowledge concerning the possible use of nature as a therapeutic tool within the community of financially distressed single mothers.

For information or to learn more about this research, call Suzanne Frost, Doctoral Student in Clinical Psychology, 805-252-1655.

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