A Review of the Key Considerations in Mental Health Services Research: A Focus on Low-Income Children and Families

Deborah J. Jones, Margaret Anton, Chloe Zachary, Sarah Pittman, and Patrick Turner
University of North Carolina at Chapel Hill

Rex Forehand
University of Vermont

Olga Khavjou
RTI International, Research Triangle Park, North Carolina

Children have been particularly vulnerable to the economic challenges of the past decade, with half (45% to 51%) of children under 18 years of age living in a low-income home and nearly 22% of those living in poverty. Low-income children are overrepresented in a range of statistics on psychosocial maladjustment issues, but their families are less likely than other socioeconomic groups to participate in mental health services and intervention research. Thus, this review asserts that substantive advances in mental health services and intervention research with low-income families must move beyond a between-groups, deficit-focused perspective to a more nuanced contemplation of how to (a) operationalize the income in low-income families; (b) disentangle the interrelationship of low income, race, and ethnicity; and (c) optimize recruitment, engagement, and retention efforts via sensitivity to the culture of low-income status. Examples of mental health services and intervention research with low-income families will be discussed, and a summary, conclusions, and directions for future research are discussed in the context of these recommendations.

Keywords: low income, families, children, culture, services

Economic shifts of the past decade, including the housing crisis and Great Recession of 2007–2009, have resulted in more Americans living in poverty. In 2015, 20% of Americans were classified as low income based on size-adjusted household incomes, an increase of 4% over the past 40 years (Pew Research Center, 2015). Children have been particularly vulnerable during these economic changes, with half (45–51%) or approximately 32.4 million children under the age of 18 living in a low-income home, now representing the majority of students in the nation’s public schools, and nearly 22% (16.1 million) of those living in poverty (Addy, Anglehart, & Skinner, 2013; Jiang, Ekano, & Skinner, 2016; Southern Education Foundation, 2015). Low-income children are overrepresented in a range of statistics on psychosocial maladjustment, including internalizing and externalizing problems, as well as problems with school readiness and underperformance (see Brooks-Gunn & Duncan, 1997; McLeod & Shanahan, 1993; McLoyd, 1998 for reviews). For example, although approximately one quarter (26%) of children in general experience psychopathology, rates in low-income neighborhoods are as high as 40% (see Costello, Egger, & Angold, 2005; Gopalan et al., 2010; Xue, Leventhal, Brooks-Gunn, & Earls, 2005).

Deborah J. Jones, Margaret Anton, Chloe Zachary, Sarah Pittman, and Patrick Turner, Department of Psychology & Neuroscience, University of North Carolina at Chapel Hill; Rex Forehand, Department of Psychological Science, University of Vermont; Olga Khavjou, RTI International, Research Triangle Park, North Carolina.

Support for this project was provided by a grant from the National Institute of Mental Health (R01MH100377).

Correspondence concerning this article should be addressed to Deborah J. Jones, Department of Psychology and Neuroscience, Davie Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599. E-mail: djones@email.unc.edu
Despite such disparities, low-income families are less likely to participate in mental health services and intervention research. For the purposes of this review, we define services research as those studies examining mental health and disorders across the lifespan, including epidemiology, assessment/diagnosis, and efficacy and effectiveness trials (National Institute of Mental Health, 2016). Moreover, simply making mental health services and interventions available does not necessarily increase or ensure participation (see Heinrichs, Bertram, Kuschel, & Hahlweg, 2005; Hogue, Johnson-Leckrone, & Liddle, 1999; Schnirer & Stack-Cutler, 2007, for reviews). For example, in their review of recruitment and engagement research with low-income families, Schnirer and Stack-Cutler (2007) revealed that only one third (34.5%) of investigators reached their target sample within the allotted timeline most (76–100%) of the time. As a result, the authors reported that the vast majority of respondents made one or more adjustments to their recruitment plan and timeline, including increasing project resources (e.g., staff time on recruitment, recruitment sites); extending the recruitment period (e.g., 6 months to 2 years), broadening the inclusion criteria (e.g., reconsidering the definition of low income); and, most dramatically, choosing to terminate the research. Given the seemingly universal difficulties in recruiting and engaging low-income families, it is perhaps not surprising that exorbitantly time-intensive and costly randomized controlled trials often conclude with a caution that results have “limited generalizability” for a range of underrepresented groups, including low income (see Hyde, Thompson, Creswell, & Falk, 2015; Rowley & Camacho, 2015, for reviews).

However, this default of exclusion is at odds with federal initiatives and policies, which depend on obtaining efficacy and effectiveness data with low-income families. For example, the Patient Protection and Affordable Care Act (PPACA), which aims to transform health care by reducing costs; increasing access; and, in turn, improving health outcomes regardless of income, defines mental health care as an “essential benefit.” Moreover, funding agencies such as the National Institute of Mental Health (2016) have identified research on health disparities based on demographics as “essential to the development of precision medicine and personalized interventions.” In turn, policy groups, such as the American Psychological Association (APA), have created offices to “develop and facilitate relationships and activities to advance psychology as a major force in research, policy and advocacy related to SES,” or socioeconomic status, which is typically defined as a combination of income and education (APA, 2016). Thus, our intention is to complement such initiatives by conveying the importance of moving the literature on disparities beyond between-group (i.e., examining psychosocial adjustment of low-income vs. middle- and high-income families), deficit-focused (i.e., demonstrating that low-income children and families may be more likely to evidence psychosocial adjustment difficulties) perspectives. Instead, we propose that it is time for research that gives more nuanced consideration of the variability in ecological and contextual factors within and between low-income families and how such variability may shape perceptions about; receptivity to; and, ultimately, involvement in mental health services research. Therefore, this review asserts that substantive advances in mental health services research with low-income families must move to a more nuanced contemplation of how to (a) operationalize the income in low-income families; (b) disentangle the interrelationship of income, race, and ethnicity within and between low-income children and their families; and (c) optimize recruitment, engagement, and retention efforts via sensitivity to the culture of low-income status. These recommendations will be discussed in turn in the following sections, and examples of mental health services and intervention research with low-income families will be provided to illustrate these nuances.

Operationalizing Income in Low-Income Families

Although seemingly straightforward, the definition of income in the recruitment of low-income children and families can actually be nuanced. In fact, how low income is defined varies from study to study, including whether a more objective dollar amount (e.g., financial income) is used versus a more subjective marker of financial burden or distress. In terms of objective criteria, many researchers use standards based on federal poverty levels for a given
region to define low income. In the United States, a commonly used federal metric is the poverty guideline, released annually by the U.S. Department of Health and Human Services (Health & Human Services Department, 2015). For example, for a household of four adults and/or children, the federal poverty guideline in the 48 contiguous states and District of Columbia in 2015 was $24,250. However, even when researchers use objective criteria to define income there remains variability. Although some may use the federal poverty limit to define their sample, others may use percentage multiples of the limit (e.g., not more than 150% or 200% of the federal poverty limit) to capture a broader and more diverse sample of low-income families.

It is important to note that the advantage to using such an approach is that these federal guidelines are released annually, are adjusted by family size, and are often used to determine eligibility for various federal aid programs, including subsidized health care and housing. In turn, researchers using this approach must still be thoughtful about what they choose to “count” as income and why. For example, the U.S. Census Bureau’s official poverty definition uses income before taxes and does not include capital gains or noncash benefits, such as public housing, subsidized health insurance, or food stamps (U.S. Department of Health and Human Services, 2016a). However, federal, state, and local agencies serving low-income families may vary to some extent in whether they use before- or after-tax income, net or gross income, and what income is actually used to compute poverty. For example, the Affordable Care Act changed the method of defining income for Medicaid eligibility purposes to the Modified Adjusted Gross Income, which is based on federal income taxes, and thus does not include child support, Social Security, or pretax spending on childcare or retirement savings (The Henry J. Kaiser Foundation, 2011). Head Start, in contrast, includes all of the aforementioned as income when determining eligibility (U.S. Department of Health and Human Services, 2016b).

Alternatively, some researchers may choose to operationalize low income as recipients of a specific type of financial assistance, such as health benefits, disability or employment benefits, income support, subsidized housing, and/or free school lunches. Using such an approach may overlap to some extent with a definition based on the federal poverty limit alone given that many agencies determine eligibility for benefits on some derivation of the poverty guidelines; however, it may provide a greater level of certainty that participants are, in fact, low income given the standards of proof that are typically required to qualify for such programs. Furthermore, recruiting participants through an established government program or community-based agency may greatly facilitate the recruitment process because it provides an available pool of eligible individuals who meet income inclusion criteria. For example, recruiting through programs such as Head Start or Women, Infants, and Children (WIC) provides an identifiable pool of low-income parents of young children. However, it is critical that researchers are well versed in the requirements to qualify for the various financial assistance programs to ensure vital members of their participant pool are not excluded from receiving benefits, such as noncitizens, or individuals lacking the social capital and capability to apply for and receive such aid.

In addition it important to consider whether mental health researchers are interested in families in poverty (i.e., federal poverty guideline) or a broader definition of low income. For example, families who reside just above the federal poverty guideline, often referred to as the “near poor,” earn between 100% and 250% of the federal poverty guideline, but they often live hovering one or two paychecks away from poverty (Harris & Kearney, 2013). Residing slightly above the federal cutoff, these families do not consistently qualify for various aid programs, but an estimated one third of these individuals rely on at least one government program for support, most often the Supplemental Nutrition Assistance Program (SNAP), which extends benefits to those residing at or below 130% of the poverty guideline (Harris & Kearney, 2013). Furthermore, it may be that many who fall in this area are uninsured, underinsured, or experience a lack of parity in mental health coverage. Although these rates are rapidly changing due to the Affordable Care Act, in 2012, 21.5% of the uninsured were middle-class families earning $25,000—49,999 and 15.4% among those earning $50,000—74,999 (DeNavas-Walt, Proctor, & Smith, 2012). In turn, a commonly used metric for researching such
families is an income-to-needs ratio, or the ratio of household income to the federal poverty guideline based on family size. For example, a family with an income-to-needs ratio of 1.75 would have an income of 175% the federal poverty guideline for their given family size. Using this metric allows for flexible comparison of participants with varying family sizes as well as between countries with unique poverty guidelines.

For other types of research, subjective definitions of low income may be more appropriate, particularly for research focused on the experience of financial hardship and its repercussions. This research may include participants who report struggling to sufficiently meet their monthly needs, and financial hardship can be assessed through established measures such as the Family Economic Strain Scale (Hilton & DeVall, 1997) or the Economic Hardship Questionnaire (Lempers, Clark-Lempers, & Simons, 1989). For example, Brody, Murry, Chen, Kogan, and Brown (2006) posited that the negative emotions produced by economic stress impair healthy family functioning and therefore defined income by using the Money for Necessities subscale of the Family Resource Scale (Dunst & Leet, 1987) and hypothesized that families with greater economic stress would require higher doses of the intervention to benefit. This more flexible approach allows researchers to account for the variety of experiences that may affect an individual or family’s financial situation, including extreme economic hardship due to the costs associated with supporting an ailing family member or sending earnings to family members in another country, but that typically would not be included using more stringent criteria such as the federal poverty guidelines. In turn, subjective definitions of income may result in greater socioeconomic diversity within a sample, diversity that is also reflected in considerations of race and ethnicity.

Disentangle Income, Race, and Ethnicity Within and Between Low-Income Children and Families

Regardless of how income in general and low income in particular are defined, there is a longstanding association between income and race and ethnicity (Pew Research Center, 2015; National Center for Law and Economic Justice, 2013); however, the association is perhaps more nuanced than is typically reflected in research. That is, 18.9 million Caucasians/Whites in the United States are poor, which is approximately 8 million more Caucasian poor than African American/Black poor and 5 million more Caucasian than Hispanic/Latino poor (DeNavas-Walt, Carmen and Bernadette D. Proctor, & U.S. Census Bureau, 2014). In the case of children, estimates suggest that at least one third of the 13 million children living in poverty in the United States are also Caucasian and, in turn, represent a sizable proportion of families benefiting from federal programs, such as Medicaid and food stamps (Jiang, Ekono, & Skimmer, 2016; Pew Research Center, 2015). In part, the rise in the number of children residing in low-income families in the United States, including Caucasian children, has been attributed to the shrinking middle class, defined typically as families who make two thirds to double the national median each year (e.g., $42,000–126,000 for family of three; Pew Research Center, 2015). For example, the median household income of families in the middle class fell 4% between 2000 and 2014, with their median wealth (assets minus debts) experiencing an even more dramatic decline (28%) during approximately the same period (Pew Research Center, 2015). Such trends have been attributed largely to two recessions (2001, 2007–2009), the slow pace of economic recovery, and the housing market crisis. The cumulative effect of this led to dramatic declines in employment (e.g., sales, mechanics, laborers, and transportation) and industry (e.g., manufacturing, utilities, trading) for those who were once more firmly rooted in the middle, albeit perhaps lower-middle, class (Pew Research Center, 2015).

However, despite the reality of the ethnic and racial diversity among poor families in the United States, psychosocial research with children, including services work, has tended for the most part to conduct research on middle- and high-income Caucasian families and/or low-income racial and ethnic minority families (Chang et al., 2014; Hill & Bush, 2001). There are likely at least three reasons for such trends in the literature. First, the relative focus on ethnic and racial minority poor in mental health services research may be reflective of policy changes in the United States. For example, discussions of welfare reform highlight the relative
lack of attention to unique factors characteristic of the rural poor, who are more likely to be Caucasian than urban poor, including residential isolation, geographic distance to potential employment, and lack of transportation (see Amato & Zuo, 1992; O’Hare, 2009, for a review). In addition, the same barriers that make it difficult for rural, predominately Caucasian, poor to benefit from policies such as welfare likely also decrease awareness of and/or opportunities to engage in mental health services research. Whereas urban poverty tends to be concentrated in areas in relatively close proximity to education, health care, and research settings where mental health services and intervention research is being conducted, rural poverty is far more geographically isolated, widespread, and heterogeneous, including hollows, farms, and reservations (Amato & Zuo, 1992; O’Hare, 2009). In turn, such diversity may make it more challenging for researchers to identify and characterize their samples and, as a result, their research questions and hypotheses as well. A third and final possibility that we will discuss here is that such trends may be because ethnic and racial minorities are disproportionately overrepresented in statistics on the low-income, relative to Caucasian, families. That is, although only 9% of Caucasian families are low income, approximately one quarter of African American (27%) and Hispanic (25%) families are poor (U.S. Census, 2014). These disparities become even more pronounced when considering only the most impoverished individuals and families. Of those individuals considered to be in deep poverty (i.e., having an income below half the federal poverty line), Latinos are twice as likely and African Americans are three times as likely to be in deep poverty than their Caucasian counterparts (Lei, 2013). Although African-American and Latino families are the most dramatically overrepresented, other racial minority groups, including American Indian/Alaska Native, Pacific Islander, and Native Hawaiian families, are also more likely to reside in poverty than Caucasian and Asian families (APA, 2015; Costello, Keeler, & Angold, 2001). Despite some shifts, attributed largely to the upward mobility of African-American families, as well as among Hispanics born in the United States relative to their immigrant parents (Pew Research Center, 2015), discrepancies persist for many reasons, including discrimination, marginalization, higher rates of unemployment, and differences in educational attainment (APA, 2015; Corcoran & Nichols-Casebolt, 2004; U.S. Department of Education, 2007).

Consistent with general economic trends, as well as shifts within and between groups, researchers recruiting low-income families with children are by definition going to be working with diverse samples, characterized by racial and ethnic diversity between families, as well as within families, because the number of multiracial babies in the United States has increased from 1% in 1970 to 10% in 2013 (Pew Research Center, 2015). Therefore, research on low-income families must consider if and how racial and ethnic diversity may shape research questions and hypotheses as well as strategies and procedures for recruitment and retention of families. However, the intersection of race and ethnicity and income is complex and often confounded in research on mental health outcomes. For example, far too often researchers assert that race and ethnicity explain or moderate relationships in psychological research without considering or controlling for the fact that income status may systematically differ between racial or ethnic groups and be driving observed differences (Betancourt & Lopez, 1993). However, only 22% of studies on child health and health care actually disentangle these associations by investigating the influence of race and ethnicity on outcomes after controlling or accounting for income status (Chang et al., 2014).

As a result, many have highlighted that income differences partially, albeit not fully, explain poorer mental health outcomes in research on racial/ethnic minorities relative to Caucasians (e.g., Chang et al., 2014; Costello et al., 2001; Link & Phelan, 1995). For example, Hill, Bush, and Roosa (2003) investigated the association between parenting practices and child outcomes, including depression and conduct problems, in demographically comparable (e.g., low-income, same neighborhood context) samples of European-American and Mexican-American families and found similar variability in the range of parenting practices and outcomes examined. Likewise, some researchers have found that after controlling for SES (i.e., typically defined as some combination of income
and education), racial and ethnic differences in child outcomes disappear (Uno, Florsheim, & Uchino, 1998). However, studies that do not account for income differences between racial and ethnic groups often find and attribute differences in parenting practices and outcomes to race and ethnicity (Hoff-Ginsberg & Tardiff, 1995; Roosa, Morgan-Lopez, Cree, & Specter, 2002).

Of course, related to research questions and hypotheses about diversity are practical considerations regarding recruiting low-income, ethnically and racially diverse samples, including the extent to which English is the primary language spoken in a home. For example, as noted earlier, one quarter of Hispanic families in the United States are low income, with even higher rates among immigrant families (National Center on Child Poverty; Pew Research Center, 2015; U.S. Census, 2014). Therefore, although low-income immigrant Hispanic children in the United States are more likely to have opportunities to learn English within the context of the school and community, many Hispanic parents do not speak English, relying instead on their native language in the home and their children or other interpreters in the community (Orellana, 2003; Villanueva & Buriel, 2010). As a result, research with low-income children and families must thoughtfully consider the extent to which resources are available to recruit and support non-English-speaking parents. In addition to language barriers, researchers must consider the realities of legal documentation (or lack of it) that weigh heavily on many of the families most in need of services. As characterized by Viladrich (2012), undocumented immigrants may simultaneously feel undeserving of health-care “benefits” and at the same time experience complicated thoughts and feelings when they do seek services because of the realities of racism and discrimination. However, there are other, more seemingly benign, yet equally threatening, aspects of mental health services and intervention research for those who are undocumented, including the prospect of signing consent forms; the limits of confidentiality, which may pose risks beyond calls to social services and/or hospitalization; and the collection of social security numbers required for participant payment.

**Optimize Recruitment, Engagement, and Retention via Sensitivity to the Culture of Low Income**

When the term culture is used in services research, it typically refers to the culture of race or ethnicity; however, discussions of multiculturalism more broadly include a range of factors, including the culture of income or class (see APA, 2003; Constantine & Sue, 2005; Jones et al., 2013). In essence, social class as culture reflects how income shapes behaviors, routines, and rituals, which uniquely and collectively shape the identity of upper-, as well as lower-, class individuals (see Kraus, Piff, & Keltner, 2011, for a review). In terms of how the low-income culture shapes involvement in mental health services research, low-income families are less likely to enroll in research than their higher income counterparts (see Forehand & Kotchick, 1996; Jones et al., 2013; Schnirer & Stack-Cutler, 2007, for reviews). Thus, investigators may attribute the responsibility for disappointing participation rates to low-income communities themselves; however, a more proactive approach is one of humility in which the onus falls on the research team to optimize recruitment, engagement, and retention strategies to uniquely suit the cultural context of low-income children and their families.

We draw our discussion of barriers and strategies for overcoming them from various resources within and across disciplines (Bramon et al., 2013; Cui, Seburg, Sherwood, Faith, & Ward, 2015; Miranda, Azocar, Organista, Muñoz, & Lieberman, 1996; Ortiz & Del Vecchio, 2013). Taken together, our review suggests that understanding barriers to recruitment, engagement, and retention of low-income families may be characterized within an ecological systems framework (see Bronfenbrenner, 1979; Cummings, Davies, & Campbell, 2002, for reviews). That is, ecological systems theory suggests that behavior, defined broadly and including the behaviors of individuals and families, occurs in context. Some aspects of these contexts are structural, including income but also other factors, such as constraints associated with geography, whereas others are psychosocial, including family stress and caregiver mental health.
In the case of structural factors likely associated with the participation and experience of low-income families in mental health services and intervention research, they are numerous and only those we consider primary will be highlighted here. Commonly discussed among structural barriers are a lack of and/or inconsistent transportation to and from appointments; time constraints common among low-income families due to competing demands of multiple jobs, often including shift work; and lack of reliable and/or affordable child care. Solutions to such barriers have been proposed as well, including conducting mental health services research in a convenient community-based location, including the family’s home, subsidizing transportation (e.g., taxi service), and/or paying for or providing childcare for nonparticipating children. It is interesting to note that such practical solutions do not necessarily seem to address or overcome challenges to recruiting and retaining low-income families in mental health services research. For example, Fernandez, Butler, and Eyberg (2011) piloted a home-based trial of an intervention for low-income families of children with disruptive behaviors; however, more than half (56%) of families dropped out of treatment.

High dropout rates despite practical solutions to structural factors, such as home-based treatment, suggest that psychological factors also likely hinder recruitment, engagement, and retention of low-income families in mental health services research. Family stress theory highlights the indirect effect of financial strain on children through parental stress and associated compromises in parenting (see Conger & Donnellan, 2007, for a review). Accordingly, low-income families are not only more vulnerable to disruptions in caregiver (e.g., parental stress, depression, emotion dysregulation) and family (e.g., parent-child and marital conflict) functioning implicated in the development and exacerbation of maladaptive child behavior (see Dekovic et al., 2011; Jones et al., 2013; Lundahl, Risser, & Lovejoy, 2006; Piquero, Farrington, Welsh, Tremblay, & Jennings, 2009, for reviews), but these factors also interfere with treatment seeking and engagement (see Eyberg, Nelson, & Boggs, 2008; McMahon & Forehand, 2003; Reyno & McGrath, 2006; Thomas & Zimmer-Gembeck, 2007, for reviews).

In addition to family stress and its effect, research suggests that social forces may also be at play in mental health services research with low-income children and families. For example, some research suggests that it may be relatively more difficult to recruit underrepresented samples into applied (e.g., intervention) research, relative to basic research (e.g., observation), given that there is less skepticism and uncertainty regarding the potential for placebo, deception, and/or a substandard of care (see Yancey, Ortega, & Kumanyika, 2006, for a review). Mental health services research in particular may exacerbate barriers to recruitment, engagement, and retention of low-income families of children relative to health-care research more generally. Perhaps, most notably, when it comes to thinking of the culture of class as it relates to mental health, some prior work suggests that low-income individuals may be less willing, less equipped, or even unable to share and express their problems or their thoughts and feelings about those problems, whether physical or psychological (Stewart, Nápoles-Springer, & Pérez-Stable, 1999). Of course, such generalizations confound the myriad of complicated and interacting explanations of why such patterns may be more likely in lower income families. On one hand, the proverbial phrase “pull yourself up by your bootstraps,” often heard within low-income communities, seems to suggest that the onus is on the individual or the individual’s community to identify and “fix” the problem without the need for or inclination to turn to outside help. That said, there is also a seemingly contradictory, albeit equally common, sense among some low-income and minority individuals that they may lack power or control over their health and well-being, a disposition sometimes attributed to religion and a reliance on faith and God, which may also deter them from seeking help from mental health professionals in particular, in contrast to other professionals, such as pastoral counselors or clergy (Stewart et al., 1999).

There are some data to suggest that in the context of these structural, psychological, and social factors, members of low-income communities are more likely to enroll in research studies if they are referred to them by a trusted resource, or the study is conducted through a
known source or in the context of a familiar agencies (e.g., WIC); neighborhoods (e.g., sub-
sidized public housing, public schools); and lo-
local, state, and federal initiatives that families
already use (e.g., Medicaid; e.g., Rdesinski,
Melnick, Creach, Cozzens, & Carney, 2008;
Wallace, Berent, McCarthy, Senn, & Carey,
2014; Yancey et al., 2006). When surrounded
by unfamiliar research staff, low-income fami-
lies may be less likely to ask informed questions
that would facilitate decision-making regarding
participation in services research or to under-
stand and/or adhere to research protocols, pre-
venting them from benefiting from state-of-the-
field advances in psychosocial services research
(Schillinger, Bindman, Wang, Stewart, & Pi-
ette, 2004; Stewart et al., 1999). In contrast,
there is likely some comfort among low-income
families with such trusted others who are aware
of and respect potential challenges to engage-
ment that most cultures may take for granted,
including lower levels of education and literacy;
more limited English proficiency, which in turn
may lead to more difficulty understanding the
technical and scientific language that character-
izes recruitment, consent, and other research
documents; and the implications of consent and
the limits of confidentiality (Corbie-Smith,
Thomas, Williams, & Moody-Ayers, 1999).

In response to these issues, mental health
services researchers should select recruiters
from well-respected members of the community
(e.g., elders, pastors, parents, teachers), con-
sider matching race and ethnicity of recruiters
and therapists with clients, provide all research
staff with training and supervision in multcul-
tural competence and humility, and hire and
support bilingual staff and therapists and/or
translators when and if possible and relevant. Of
note, such recommendations are collectively
embodied in community-based participatory re-
search (CBPR). Although definitions of CBPR
vary widely, the central theme is an approach to
services research that engages community
members (i.e., those representing research par-
ticipants) who then collaborate in partnership
with researchers in all phases of the project (see
Faridi, Grunbaum, Gray, Franks, & Simoes,
2007, for a review). That said, CBPR has not
proven to be the panacea for which some had
hoped, a state of the field that Faridi and col-
leagues (2007) have attributed to a lack of stan-
dardization within and across studies that makes
it difficult to ascertain the merit of CBPRs rel-
ative to more traditional research paradigms.
Because these questions continue to be ad-
ressed, some have suggested even more basic
attention to research protocols, including other
modes of consent, such as instructional videos,
rather than lengthy and dense consent forms.
This could lower income families to more
fully understand the parameters of what is being
offered and, in turn, the pros and cons or risks
and benefits of participating (Wallace et al.,
2014). Finally, advertisements (e.g., brochures,
flyers, letters, mass emails), as well as all other
intervention program materials (e.g., manuals,
handouts, presentations), should be designed
and conducted with special attention to termin-
ology (e.g., potentially limited education/reading level), images (e.g., racial and ethnic
diversity within and between families), and lan-
guage (e.g., English and Spanish versions) fa-
miliar to and characteristic of low-income chil-
dren and families.

Even when care is taken to consider and
address all of the factors described here, it is
important to realize that even seemingly benign
aspects of the research encounter might still be
shaped by the culture of class. For example,
Kraus and colleagues (2011) posit that objective
social class (e.g., income, education, occupa-
tion) signals or cues symbols of wealth (e.g.,
social behaviors such as manners, language use), which shape one’s own subjective social
standing (e.g., low rank) and associated
thoughts, feelings, and behaviors. Some work
posits that because high-income individuals
have abundant resources and, in turn, less de-
dependency on others, as a group they may appear
relatively more disengaged (e.g., less respon-
sive, fewer head nods or eye contact; doodling
or checking cell phone; e.g., Kraus & Keltner,
2009; also see Kraus et al., 2011). In contrast,
given that lower income individuals are more
reliant on others for resources, as a group they
may appear relatively more socially engaged. In
turn, prior research has shown that individuals
can reliably use brief (e.g., 1-min) interactions
to judge the SES of others based on nonverbal
engagement or disengagement (Ambady &

It is interesting to note that such cultural
aspects of social class suggest that lower rank
families may at least initially approach research
encounters with relatively higher levels of so-
social engagement (i.e., more responsive, more head nods and eye contact; less distractedness) and may, in turn, be looking for some level of reciprocity from research staff as an indicator of their worth or importance or connectedness to the provider. To some extent we know that this “match” occurs for some low-income families, because those who have previously participated in research studies are more likely to participate in future research (Rdesinski et al., 2008). In addition, offering incentives, defined broadly here to include monetary compensation (e.g., $50/assessment), gift cards (e.g., accessible store or restaurant), meals (e.g., dinner for child and family), and educational materials (e.g., books), may increase the likelihood that low-income families report feeling more valued by researchers and, in turn, more likely to participate (e.g., Heinrich et al., 2005; Wallace et al., 2014; Yancey et al., 2006).

That said, when a mismatch occurs between a low-income participant’s high engagement and the research staff’s perceived low engagement, then lower class rank may be associated with more vigilance (Kraus, Piff, & Keltner, 2009; Kraus et al., 2011; Piff, Kraus, Côté, Cheng, & Keltner, 2010). For example, although Spoth, Redmond, Hockaday, and Shin (1996) reported that time restraints and invasion of privacy were the primary reasons for nonparticipation among families in general, such concerns may be particularly problematic for the lowest income families who may be most skeptical of or hesitant to participate in psychological research or services. For example, low-income families report privacy concerns as a reason for nonparticipation, including an increased likelihood to decline video-recording, interviews about their families, and home-based services (Schnirer & Stack-Cutler, 2007), unless convincingly assured that their identity would be protected (Wallace et al., 2014).

Examples of Mental Health Services and Intervention Research With Low-Income Families

Despite the nuances and challenges of mental health services and intervention research with low-income children and their families, there is promise. For example, family stress theory highlights the indirect effect of financial strain on children through parental stress and associated compromises in parenting (see Conger & Donnellan, 2007, for a review). Accordingly, it is not surprising that low-income families are more vulnerable to the coercive cycle of parent–child interaction implicated in the development and exacerbation of early-onset (3–8 years old) disruptive behavior disorders (i.e., oppositional defiant disorder and conduct disorder, which co-occur with attention-deficit/hyperactivity disorder), and, in turn, are more likely to have a child with an early-onset disruptive behavior disorder than relatively higher income families (see Dekovic et al., 2011; Jones et al., 2013; Lundahl et al., 2006; Piquero et al., 2009, for reviews).

Data suggest that if we successfully engage low-income families in behavioral parent training (BPT) services, they benefit as much, if not more, than relatively higher income families, particularly at posttreatment and when the problem behaviors are in the clinical range (see Dekovic et al., 2011; Leijten, Raaijmakers, de Castro, & Matthyss, 2013; Reyno & McGrath, 2006, for reviews). However, financial strain and associated difficulties (e.g., poor mental/physical health, un/underemployment, lack of health insurance/underinsured) decrease the probability that low-income families will engage at a level necessary for BPT to be efficacious (e.g., 12–28 session hours, midweek telephone check-ins, daily home practice; see Eyberg et al., 2008; McMahon & Forehand, 2003; Reyno & McGrath, 2006; Thomas & Zimmer-Gembeck, 2007).

Therefore, researchers have taken a health maintenance approach that aims to prevent the development of early-onset behavior problems in at-risk, low-income children. For example, the Family Check-Up (FCU; Dishion & Stormshak, 2007), which is typically conducted through community service settings (e.g., schools, pediatricians, community agencies), was developed to provide brief, periodic support to families to prevent the deterioration of family functioning and child behavior. The FCU model consists of two phases. The first phase includes three brief sessions to guide the selection of specific family management practices: (a) an initial interview, (b) a family assessment, and (c) assessment feedback. The second phase consists of 12 structured modules based on established parent management techniques that target parent–child relationship
quality, positive parenting, and appropriate limit setting. From these options, the therapist selects targeted, brief interventions as indicated by the assessment, and most families receive three sessions of parent training. Results from research on the FCU with low-income families suggest that this model can prevent the early emergence of conduct problems between 2 and 5 years of age and improve parenting practices over time (Dishion et al., 2014).

Other research on early-onset behavior problems is investigating innovative service delivery techniques to engage low-income families in BPT treatment (see Jones et al., 2013, for a review). For example, Jones and colleagues (2014) used smartphone technology (e.g., skills video series, daily surveys, video check-ins, home video observation, appointment reminders) with the aim of increasing low-income (defined as income not exceeding 150% of the federal poverty guidelines) families’ connection to BPT; support from the therapist; and, in turn, autonomy with using the skills outside of the session with the aim of increasing caregiver intrinsic motivation to complete treatment. Findings suggested support for study hypotheses because low-income families randomized to the technology-enhanced BPT program were more likely to come to weekly sessions, complete their homework, and participate in the midweek check-in call than low-income families in the standard BPT program. In turn, children in the technology-enhanced BPT group evidence better outcomes than those in the standard program, and such improvements occurred with less therapist time (i.e., technology-enhanced families required fewer sessions to master BPT skills) and with no compromises to caregiver satisfaction with treatment.

However, if left untreated, then low-income children continue to evidence relatively higher levels of behavior problems into and through adolescence than their higher income peers. To target adolescent youth in particular, multisystemic therapy (MST) was developed to serve as an intensive family- and home-based intervention for adolescents with serious behavioral issues. For example, in one study of MST, SES was examined as a moderator of the effect of treatment on caregiver monitoring of adolescents (12–18 years old) with a history of delinquent behavior (i.e., one or more criminal offense, diagnosis of conduct disorder, and/or significant behavior problems at home or school such as truancy, expulsion, aggression; Robinson et al., 2015). Findings revealed that caregiver SES did not predict changes in caregiver monitoring across treatment and did not moderate the effect of treatment on adolescent externalizing problems. Taken together, these results demonstrate a need for further understanding the potential role of the youth’s larger social context in predicting MST outcomes. Such findings are consistent with our earlier discussion of BPT; that is, if we can engage low-income families in treatments that we know work, then they can and will benefit.

**Summary, Conclusions, and Future Directions**

In summary, economic declines over the last decade in the United States have led to a dramatic rise in the number of low-income children, who are more likely than children from other income groups to experience psychosocial and academic problems. Despite calls for more research on such disparities, challenges to the inclusion of low-income families are sometimes so substantial that researchers terminate the studies all together. Thus, the success of mental health services research on low-income children and families likely requires a far more nuanced consideration of income, race, and ethnicity, and culture more broadly, to maximize healthcare benefits for this at-risk and underserved group.

With regard to operationalizing income, this review aimed to highlight the potential for broad heterogeneity in a construct, low income, more typically treated as homogeneous within empirical research. That said, we hope that our review of the literature on the various strategies for defining income adequately conveyed our belief that there is no right or wrong approach. Instead, the operationalization of low income likely most importantly depends on the research questions and hypotheses. For example, McLaughlin, Costello, Leblanc, Sampson, and Kessler (2012) examined associations between family-level indicators, including objective (parental income and education) and subjective (relative deprivation, subjective social standing), and community-level income variation with adolescent mental disorders in the past year. Findings revealed that links with adoles-
rather factors associated with income, including neighborhood context, should predict homicide offenders. The authors predicted that the racial discrepancy in rates of offending could be accounted for by factors associated with low-income status, such as exposure to violence, increased stress, and neighborhood context, which increase rates of aggression and delinquency. This is a good example of the general consensus in the field that it is no longer adequate to hypothesize that differences between two or more demographic groups exist, but rather researchers should consider the possible mechanisms by which race/ethnicity and/or income may result in disparate outcomes and function through different mechanisms (Coll et al., 1996; McLaughlin et al., 2012). For example, some research suggests that racial and ethnic minority status may be related to increased experiences of acculturative stress and discrimination and that the stress associated with these experiences may lead to differences between racial and ethnic groups (e.g., Mays, Cochran, & Barnes, 2007; Quintana et al., 2006; Wong, Eccles, & Sameroff, 2003). On the other hand, negative life events (e.g., exposure to violence, stress associated with poverty) and the lack of access to social and material resources (e.g., less parental involvement, less stimulating home environments) often associated with low-income status are hypothesized to lead to maladaptive child outcomes (see Bradley & Corwyn, 2002 for a review). Therefore, researchers should include measures of potential mechanisms in research designs and test specific hypotheses related to race/ethnicity and income.

Intersecting with income, race, and ethnicity, we suggest that mental health services research should also consider the culture of class. The shared aspects of the cultural context of low-income families in general suggests a belief that they will not be able to afford and/or will be denied access to advancements in mental health care that evolve from services research that, in turn, makes the present or future value of such work for themselves or their community negligible (Corbie-Smith et al., 1999). Of course, such caution is historically rooted and potentially adaptive for families who report fear of feeling like a “guinea pig,” most likely stemming from a past of racism and exploitation, including incidences such as the Tuskegee Syphilis Study (Corbie-Smith et al., 1999; Schnirer & Stack-Cutler, 2007; Yancey et al.,...
In turn, although the consent process in mental health services research is explicitly intended to protect the rights of the participant, low-income families are more likely to mistrust such documents, suspecting that they exist to legally protect the researchers rather than the participants (Corbie-Smith et al., 1999). For example, low-income parents, who may be more likely to rely on spanking and other forms of physical punishment for various reasons, including that these parenting strategies may be transmitted from one generation to the next, report that they would be less likely to seek help with parenting than the general population, citing fears of being “misunderstood”; “being judged unfavorably”; or appearing to be bad parents to providers, family members, and peers (Chung et al., 2009; Coley, Kull, & Carrano, 2014; Keller & McDade, 2000; Scaramella, Neppl, Oottai, & Conger, 2008). As a consequence, low-income parents may avoid mental health services research that could provide valuable opportunities to address potentially uninformed or unrealistic expectations for child behavior and more adaptive alternatives to physical punishment (Tempel, 2009).

In turn, considerations of income, race, and ethnicity, and culture more broadly, inform decisions about recruitment, engagement, and retention strategies. For example, we highlighted the relevance of incentivizing low-income families for research; however, there is also nuance to consider within this recommendation: To what extent may incentives also be considered coercive in the recruitment of low-income children and families in particular? In other words, how likely is it that a low-income family who otherwise does not want their child to participate feel as if they “should” because of the financial incentive? Is there a threshold at which a financial incentive is by definition “coercive” for low-income families and, if yes, then how is such a threshold defined and enforced? However, such questions may also be informed by consideration of low-income parents’ motivation for participation in mental health services research or their expectations of participating. For example, Gross, Julion, and Fogg (2001) have examined both of these qualities in a parenting prevention program for low-income families. Chief among motivations for participating were to learn more about children, share experiences with others, and gain assistance with difficult child behaviors. Thus, consideration of motivations and expectations may decrease the likelihood that monetary incentives are coercive and, in turn, enhance the ethical recruitment and retention of low-income families.

It is important to note that we are not aware of a study examining mental health services research with low-income children and families that incorporates and examines the interrelationship of each of the key considerations raised in this review. However, it is worth noting that Spoth and Redmond (1995) provide a template for such work by proposing and testing a model that examined variables such as household income, severity of child problem behavior, perceived program benefits, and number of children as predictors of inclination to enroll in a parenting skills program. Household income was indirectly related to enrollment through variables such as perceived severity of child problems and practical barriers to participating. One hypothesis for such findings, related to the point above, is that motivation may be higher among families experiencing clinically significant issues with their children. That said, this work, although not specifically focused on low-income families, could serve as a model for future work examining how to integrate and examine the myriad of variables presumed to shape the success of research efforts targeting low-income children and families in particular.

In conclusion, as research, practice, and policy evolve, we make one final recommendation that mental health services research with low-income children and families begin to more consistently measure and report cost data. For example, as part of their research with low-income families, Schnirer and Stack-Cutler (2007) asked 65 researchers in Canada (52.3%), the United States (46.2%), and outside of North America (1.5%) to identify the range of recruitment strategies they use as well as the effectiveness of each. On average, the most common strategies were word of mouth, government or agency referrals, community flyers and events, and information sharing at interagency meetings, and the strategies investigators perceived to be most effective were word of mouth, elders and community leaders, door-to-door, phone calls, and community events. Although such work is an important step, the study relied on perceived effectiveness rather than actual participant yield. In addition, the study provided
details on overall staff costs ($M = 34,227; SD = $100,205), as well as the cost of staff time on recruitment in particular ($M = 13,958; SD = $42,021); however, the cost of specific recruitment strategies is necessary to better understand cost-effectiveness.

For example, toward this goal, Mendez-Luck and colleagues (2011) conducted a retrospective analysis of recruitment strategies and costs for two studies that assessed caregiving constructs among women ($N = 154$) of Mexican descent in Los Angeles, California. Various recruitment strategies were used (e.g., flyers, word of mouth, health fairs, agency partnerships); however, the costs, including financial (expenses devoted to recruitment) and nonfinancial (e.g., time), were reported for the overall recruitment effort for the first ($$1,081/study participant$) and the second ($$296/study participant$), rather than by strategy. They hypothesized that the higher per-participant cost in Study 1 was a function of more reliance on targeted one-on-one recruitment strategies (e.g., face to face contact with potential participants on street corners, bus stops) relative to Study 2, which relied more heavily on recruitment of multiple families from single events (e.g., community-sponsored recruitment event); however, they acknowledged that such an assertion is in and of itself an empirical question. As a result, future work must continue to be thoughtful about collecting cost data, as well as analyzing cost-effectiveness, in the service of optimizing mental health services and intervention research with low-income families.

References
Coll, C. G., Cnuc, K., Lamberty, G., Wasik, B. H., Jenkins, R., García, H. V., & McAdoo, H. P.
FOCUS ON LOW-INCOME CHILDREN AND FAMILIES


Kraus, M. W., Piff, P. K., & Keltner, D. (2011). Social class as culture: The convergence of resources and rank in the social realm. Current Di-


http://dx.doi.org/10.1111/j.1540-4560.2009.01640.x

Received July 5, 2016
Revision received September 8, 2016
Accepted September 26, 2016

E-Mail Notification of Your Latest Issue Online!

Would you like to know when the next issue of your favorite APA journal will be available online? This service is now available to you. Sign up at http://notify.apa.org/ and you will be notified by e-mail when issues of interest to you become available!