

Welfare Receipt Trajectories of African-American Women Followed for 30 Years

Hee-Soon Juon, Kerry M. Green, Kate E. Fothergill, Judith D. Kasper, Roland J. Thorpe, and Margaret E. Ensminger

ABSTRACT *Although there has been much discussion about the persistence of poverty and welfare receipt among child-rearing women in the US, little is known about long-term patterns of poverty and welfare receipt or what differentiates those who remain on welfare from those who do not. Furthermore, are there distinctions between child-rearing women who are poor but not on welfare from those who do receive welfare? This study examined trajectories of welfare receipt and poverty among African-American women (n=680) followed from 1966 to 1997. A semiparametric group-based approach revealed four trajectories of welfare receipt: no welfare (64.2%), early leavers (12.7%), late leavers (10.1%), and persistent welfare recipients (10.1%). The “no welfare” group was further divided into a poverty group and a not poverty group to distinguish predictors of welfare from predictors of poverty. Multivariate analyses revealed differences in predictors of trajectory groups in terms of education, physical and psychological health, and social integration. In addition, earlier chronic illness and social integration were important predictors to differentiate between long-term users (i.e., late leavers, persistent recipients) and short-term users (i.e., early leavers). Trajectories did not differ in teenage motherhood, substance use, or family history of welfare receipt. Implications for public policy are discussed.*

KEYWORDS *Welfare trajectory, Semiparametric growth mixture model, African-American women, Psychological distress, Social roles*

INTRODUCTION

In the 1930s, the US welfare program was designed to help support widowed women and orphaned children, and later it was extended to serve single mothers and their children. Although the welfare system has been valued for its economic assistance to women, there has been continual concern about its potential negative impact. Receiving welfare has been associated with poor participation in the labor force, substance abuse, and poor health.¹⁻⁴ The negative consequences may be greater for those who receive welfare for longer periods of time.⁵ Since the receipt of welfare is a stigmatized status in our society,^{6,7} the impact on women of being a welfare recipient may be over and above the impact of poverty experienced by women on welfare.⁸ Despite the ongoing national concern about long-term welfare

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receipt, few studies have examined long-term patterns and what differentiates three groups of welfare and poor women: those who remain on welfare for long time periods, those enrolled only briefly, and those who have been poor but rarely or never on welfare.

A few studies have examined welfare trajectories over time. O'Neill and colleagues⁹ estimated the duration of welfare spells using the National Longitudinal Survey of Young Women, a study that occurred before welfare reform. They found that about half of welfare recipients remained on the welfare beyond 2 years; only 18% of welfare recipients stayed on welfare longer than 5 years. Women who had durations of welfare longer than 2 years were less educated, more likely to be unmarried, had ill health, were African American, had less work experience, and had lower wages than those with shorter welfare spells. Neither teen motherhood nor region of the country was related to the length of time that women remained on welfare.

In a more recent study by Hamil-Luker examining high school dropouts from the National Longitudinal Survey, four patterns of welfare use and non-use were identified.⁵ Using a latent class analysis approach, Hamil-Luker found groups of welfare recipients: chronic recipients (17%), young adult recipients (14%), mid-adult recipients (11%), and nonrecipients (57%). These four groups differed in a number of ways. Chronic recipients were more likely than nonrecipients to be Black, to have lower scores on a skills test, to be never married, to have three or more children, and to have never received job training. Young adult recipients were more likely than nonrecipients to have been teenage parents and to have received a GED. These studies indicate that recipients with long spells are different from those experiencing brief spells in terms of demographic and social background characteristics.

Using a life course social adaptation framework,¹⁰ we consider the influence of social roles, socioeconomic resources, and social integration on welfare receipt trajectories over the life course. This framework suggests that individuals live their lives in important social contexts, for example, schools, families of orientation, marriage, families of procreation, work situations, and communities. These contexts influence the social roles of individuals and provide the arena for evaluating the performance of these roles. For child-rearing women, typical social roles might include being a wife, parenting, working, and participating in community organizations and churches. Welfare has an important meaning in this framework because of the low regard that welfare has in American society. In our framework, we might conclude that it is potentially seen as an indicator of low performance. In addition, earlier health and health behavior were also included as possible factors potentially related to welfare trajectories. Studies have found that social roles at earlier stages of life were associated with welfare participation.^{2,7,9,11,12} Being a single mother and history of unemployment were virtual requirements for qualifying for Aid to Families with Dependent Children (AFDC), the welfare program during the time of this study.

Our conceptual framework also takes into account socioeconomic resources (e.g., low levels of education, early motherhood, growing up in welfare family), allowing for consideration of limited opportunities and resource influences on welfare receipt.¹³ For example, studies show that high school dropouts are almost three times as likely as those who finish high school to receive and stay on welfare longer.^{14,15}

Ensminger¹⁶ speculated that receiving welfare may be associated with social isolation as it places welfare recipients on the periphery of society. Both Simmel¹⁷ and Coser⁸ argued that welfare recipients have a special relationship to society

because they have been defined by the society as poor and in need of help or charity. Because of this, they may be less likely to affiliate with others and participate in community life. A longitudinal study of an African-American population of women found welfare receipt to be associated with high residential mobility, less church attendance, and low organizational participation.³ It may be that extended periods of isolation decrease a woman's ability to leave welfare and maintain employment.

Poor physical and mental health have been associated with welfare receipt. Several studies have found that women on welfare are more likely than those not on welfare to suffer from psychiatric problems^{2,18,19} and physical health problems.^{20,21} A US Government Accountability Office study found that almost one third of those on welfare experience poor physical and psychological health, limiting their ability to exit welfare and maintain employment.²² Another study showed that 19% of welfare recipients meet the criteria for Diagnostic and Statistical Manual of Mental Disorders, third edition revised, psychiatric diagnosis.²³ However, another study showed that welfare recipients do not differ in depression from jobless nonrecipients or low-wage nonrecipients.²⁴ One question that remains is whether welfare causes poor mental and physical health or whether welfare is a consequence of poor health. In a prior longitudinal study of a population of African-American women, we found that, even when controlling for early physical health and psychological well-being, having ever received welfare related to poorer health 25 years later. Little is known about how early health relates to welfare duration.³

Researchers have recently focused on the relationship between substance abuse and welfare receipt.^{23,25} Several studies have found that drug use is more common among welfare recipients than among comparable nonrecipient women.^{23,25-27} Other studies, however, have found no association between welfare receipt and substance use.²⁸ In a prospective study of welfare recipients, Schmidt and colleagues found that substance abuse was not a significant determinant of consistent welfare receipt over a 6-year period, but it was a strong predictor of repeat welfare use.⁴ One question not yet explored is whether or not substance use is related to different trajectories of welfare receipt (e.g., short-term vs. long-term receipt).

In summary, studies have identified a number of factors related to welfare receipt, but few have examined the predictors of the duration of welfare receipt. Studies have relied predominantly on cross-sectional data, thereby hindering the ability to study welfare enrollment over time. Furthermore, few studies have focused on differences in patterns of welfare receipt among African-American women. Although being Black has been identified as a risk for long-term welfare receipt,^{5,9} we know little about the factors that differentiate welfare receipt among African-American women.

In this study, we examine welfare trajectories in a community cohort of urban African-American mothers from the south side of Chicago followed longitudinally for 30 years. We are particularly interested in what relates to long-term welfare participation, as these factors may indicate a vulnerable population of women whose needs will not be met by a time-limited welfare system. We consider the influence of social roles (e.g., marriage, employment, having children), socio-economic resources (e.g., educational attainment, teenage motherhood, welfare family origins), social integration (e.g., residential mobility, organizational membership, church attendance, raised in the south), and health and health behavior (e.g., physical and mental health, substance use). In addition, since welfare is highly correlated with poverty, we differentiate poverty with no receipt of welfare from poverty with welfare receipt.

METHODS

Study Design

The Woodlawn Study is an epidemiological, prospective study that focuses on a cohort of African-American children and their families living in Woodlawn, a community on the south side of Chicago. The women in this study were first identified in 1966–1967 as the mothers of an entire cohort of first graders from Woodlawn. All children who attended first grade in one of the nine public or one of the three parochial schools were asked to participate in the research and intervention program that was based on a partnership of the University of Chicago, the City of Chicago Board of Health, and the Woodlawn Mental Health Center Board.¹⁰ Only 13 families in the cohort did not participate. The board directed that the focus of the program be community children's social adaptation and mental health, broadly defined. The focus of this paper is on the mothers (not grandmothers, aunts, or other mother surrogates) interviewed when the children were in first grade ($n=1,140$). Although the children enrolled in the study were all about the same age (6–7 years), their mothers' ages varied, ranging from 19 to 51 years (median age 31 years) in 1966–1967 (because of this wide variation, we account for age in all analyses).

Nine years after first grade, in 1975, 867 (76%) of the 1,140 women were reinterviewed. Of the 273 mothers who were not reassessed in 1975, three (1%) had died, 69 (25%) refused, 126 (46%) could not be found, and 75 (27%) had moved from the Chicago area, and only local mothers were targeted for this assessment. In 1997–1998, we attempted to locate and interview all the mothers of the cohort, regardless of their geographic residence. We located 1,008 mothers (88%), of which 256 women had died. Of the surviving women ($n=752$), we interviewed 681 women (90.5%); 48 refused to participate (6.4%) and 23 (3.1%) were too physically or mentally incapacitated to be interviewed.

In 1997–1998, most women (79%) were interviewed in person; 21% completed the interview by telephone. Each in-person interview was conducted in a private location, usually the respondent's home. Of the women interviewed in 1997–1998, 13% were living in the Woodlawn neighborhood, 69% were located elsewhere within the city of Chicago, 5% were in a Chicago suburb, and about 13% had moved outside the Chicago area to other parts of the United States. The mothers' ages ranged from 51 to 80 years with a mean age of 62 years.

Sample Attrition

We evaluated attrition bias in two ways. First, we compared women interviewed in 1975 ($n=867$) with women who were not ($n=273$) interviewed. The women not interviewed in 1975 were more likely to have started child-bearing in adolescence, to have been mobile before and during the focal child's first grade year, and to have children in parochial schools rather than public schools in first grade (the parochial schools did not have a centralized record system, making it more difficult to locate these families). There were no differences in other aspects of the family background, including welfare receipt, poverty status, and education.²⁹ Second, we compared women interviewed in 1997–1998 ($n=680$) with those who were not ($n=460$). We compared these groups on early family background and health status including poverty, receipt of welfare, residential mobility, family structure, teenage motherhood, educational attainment, and psychological distress. These results suggest that, with one exception, those interviewed did not differ from those who were not. The only difference was that those interviewed were significantly less likely to report living in

poverty in 1966–1967, which may lead to an underestimation of welfare receipt and give us less power to detect differences between nonwelfare and welfare trajectories.³

Measures

Welfare Trajectory In late adulthood, the women completed a life events history, providing retrospective reports of their welfare receipt for every year between 1967 and 1997. Welfare was not defined for the women, so they answered according to their own understanding of “welfare.” We assume that, in general, they would interpret welfare as receiving support from AFDC. We further evaluated this assumption by examining the relationships of the welfare trajectories with reports of concurrent AFDC participation made in the earlier interview. There was a high overlap between the reports of receiving income from AFDC at 1966–1967 and 1975 and the retrospective reports of welfare made at T3. This assumption was affirmed by our community advisory board (other potential welfare indicators such as receiving food stamps or receiving Social Security Income were indicated by “food stamps” and “SSI”).

For each year, we created a binary variable indicating whether or not they received welfare. We then used these indicators to develop the welfare trajectories (described below in the “*Statistical Analysis*” section). We also had contemporaneous reports of welfare status at both earlier interview points. We evaluated the reliability of the retrospective reports of welfare status by examining their association with the two contemporary reports that were given: welfare trajectory was highly associated with welfare receipt in 1967 ($\chi^2=208.26$, 4 *df*, $p<0.001$) and welfare receipt in 1975 ($\chi^2=228.56$, 4 *df*, $p<0.001$). The life events history report of welfare receipt has the advantage of reporting welfare status over the life course rather than just the years when the women were interviewed.

Social Roles Since important social roles for female adults are being a wife, a parent, and an employee,³⁰ we included mother’s marital status (yes, no), number of children, and employment status (yes, no; from both early interviews in 1966–1967 and 1975).

Socioeconomic Resources Education (0–11, 12+ years), whether they were a mother as a teenager (yes, no), and whether they grew up in a family that received welfare (AFDC; yes, no) were used to measure socioeconomic resources.

Social Integration In the sociological literature, “integration” has been conceptualized in multiple ways,^{31,32} including social integration and structural integration. Social integration refers to the links that exist between individual and important social contexts such as friends, family, school, work, church, and other organizations. Structural integration denotes the concrete involvement of individuals with various aspects of a collectivity.³³ Lack of social integration has been described as social isolation. We included church and organizational membership as indicators of social integration. Church attendance in 1975 was categorized as never/infrequent attendance (less than every 2 weeks) or frequent attendance (weekly or more often). Organizational participation in 1975 was based on responses to items concerning membership and regular attendance in 11 types of political and social organization (i.e., labor unions, neighborhood block clubs, sororities or fraternities, etc.) and categorized as none or any.

We include residential mobility as a measure of structural integration. Women reported the number of times they had changed residence during two intervals: between

the birth of study child and 1966–1967 (0–2 and 3+) asked at the first interview (1966–1967) and between 1967 and 1975 (0–1 and 2+) asked at the second interview (1975). We also included whether the woman grew up in the south or not as a measure of social integration. This migration from the south to the north during the 1950s and 1960s was an important historical event for this cohort of African Americans;³⁴ some scholars speculate that women from the south were less likely to be poor and less likely to be on welfare than women from the north.³⁵ Women were asked, “In what state did you live most of the time before you were age 16?” We compared the women who grew up in the south and moved to Chicago with the women who grew up in Chicago.

Health and Health Behavior In 1966–1967 and 1975, the women answered two questions relating to psychological distress: “How often do you have days when you are sad and blue?” and “How often do you have days when you are nervous?” Possible responses were “very often, fairly often, occasionally, or hardly ever.” We coded responses into two binary variables: any sadness or nervousness reported in 1966–1967 and any sadness or nervousness reported in 1975. The reliability and validity of these reports have been assessed and found to be consistent across time and to be strongly related to longer and more complete scales of psychological well-being.³⁶

Physical health in 1966–1967 was measured by self-reports of whether respondents had a chronic illness (yes or no). Physical health in 1975 was assessed by asking respondents “How healthy would you say you’ve been since 1967?” Possible responses were “very healthy, moderately healthy, not too healthy, or not at all healthy.” We recoded these into three categories, combining “not too healthy” and “not at all healthy.”

Substance use was assessed in 1975 by asking mothers about their alcohol use (i.e., beer/wine and hard liquor), illegal drug use, and cigarette smoking in the last 12 months (0=never, 1=just once or twice, 2=occasionally, 3=on a regular base). Because <1% of the women used illegal drugs such as marijuana, cocaine, and heroin, we used only alcohol and cigarette use here. Both alcohol use and cigarette smoking were dichotomized as regular use (=3) vs. no use or occasional use (=0–2). About 7% of women reported drinking beer or wine, and about 3% had hard liquor on a regular basis. About 31% of women were regular smokers.

Table 1 provides the details on the independent variables.

Statistical Analysis

Over the past decades, there have been two well-established methods for analyzing individual-level developmental trajectories: Hierarchical modeling³⁷ and latent growth curve modeling.³⁸ In addition, Nagin³⁹ developed a distinct semiparametric group-based approach for modeling developmental trajectories. Hierarchical modeling and latent curve methodologies model population variability in growth with multivariate continuous distribution functions, while the group-based approach uses a multinomial modeling strategy and is designed to identify relatively homogeneous clusters of developmental trajectories. This group-based approach is well suited to analyzing questions about developmental trajectories that are inherently categorical (e.g., binary, count, psychometric scale).

In the first step, we used a group-based method described in Nagin³⁹ to identify the developmental trajectories of welfare receipt. Using finite mixtures of suitably defined probability distributions, the group-based approach for modeling developmental trajectories provides a method for identifying distinctive clusters of individual trajectories within the population and for profiling the characteristics of

TABLE 1 Reports of background, social integration, physical and psychological health, and substance use ($n=680$)

Variables	<i>M</i>	<i>SD</i>	Range
Age	61.91	5.55	51–80
High school graduate ^a	0.42	0.49	0–1
Teenage mother ^a	0.52	0.50	0–1
Raised in the south ^a	0.55	0.50	0–1
Grew up in welfare family ^b	0.18	0.38	0–1
Social integration			
Residential mobility, 1960–1967 ^a	0.60	0.49	0–1
Residential mobility, 1967–1976 ^b	0.49	0.50	0–1
Church membership, 1975 ^b	0.40	0.49	0–1
Organizational membership, 1975 ^b	0.72	0.45	0–1
Physical health			
Chronic illness, 1966–1967 ^a	0.10	0.30	0–1
Self-rated health, 1975 ^b	1.24	0.76	0–2
Psychological health			
Any sad and nervous feeling, 1966–1967 ^a	0.62	0.49	0–1
Any sad and nervous feeling, 1975 ^b	0.76	0.43	0–1
Substance use			
Regular cigarette smoking, 1975 ^b	0.59	0.49	0–1
Regular alcohol use, 1975 ^b	0.11	0.31	0–1

High school graduate: 0=no, 1=yes. Teenage mother: 0=no, 1=yes. Raised in the south: 0=no, 1=yes. Grew up in welfare family: 0=no, 1=yes. Residential mobility at T1: 0=0–2, 1=3+. Residential mobility at T2: 0=0–1, 1=2+. Church membership: 0=never/less than twice a week, 1=more than once a week. Organizational membership: 0=no, 1=yes. Chronic illness: 0=no, 1=yes. Self-rated health: 0=not too healthy to 2=very healthy. Psychological distress at T1 and T2: 0=others, 1=both sad and tense. Cigarette smoking: 0=no/not regular, 1=regular. Alcohol use: 0=no/not regular, 1=regular

^aMeasured in 1966–1967

^bMeasured in 1975

individuals within these clusters. In this analysis, Bernoulli distribution was fitted to the binary outcome of whether mothers received welfare for each year from 1967 to 1997. To determine how many groups best fit the data, we used the Bayesian Information Criteria (BIC) as a basis for selecting the optimal model.⁴⁰ Since prior information on the number of welfare trajectories is limited, we relied primarily on statistical guidance and selected the model with the smallest BIC (i.e., closest to zero).⁴¹ Based on the selected model, this statistical procedure assigned people into trajectory groups based on the posterior probabilities of group membership. We estimated the semiparametric growth mixture (SGM) models with a customized SAS program macro developed by Jones and colleagues⁴² and Nagin.³⁹

In the second phase, we used analysis of variance and contingency tables to identify correlates of welfare trajectories. In the final phase, we performed multinomial logistic regression analyses to identify the most significant predictors of welfare trajectories.

RESULTS

Identification of Different Trajectories of Welfare Use

Using the SGM approach, we identified subgroups with distinct developmental trajectories of welfare receipt from 1967 to 1997. We tested one-group to five-group

models of welfare trajectories. Based on the BIC, we selected the model with four groups as the best-fitting model. Figure 1 displays the results. The solid lines represent actual welfare receipt, and the dashed lines represent predicted welfare receipt. The groups identified include: (1) “No welfare,” those who received no welfare or briefly received welfare between 1967 and 1997 (64.0%). The vast majority in this trajectory (85%) never collected welfare. The mean years of welfare receipt was 0.32 year ($SD=0.94$, range 0–7) with median number of years of 0. (2) “Early leavers,” those who received welfare during their child-bearing years between 1967 and 1978 (12.8%; between ages 6 and 17 years of the focal child). (3) “Late leavers,” those who stayed enrolled on welfare for close to 20 years from 1967 to about 1988 (13.1%). (4) “Persistent welfare recipients,” those who received welfare for the vast majority of the 31 years between 1967 and 1997 (10.1%). Early leavers received welfare assistance on average for 6.6 years ($SD=2.5$). Late leavers received welfare assistance for a mean of 16.1 years ($SD=3.6$) and persistent welfare recipients received welfare assistance on average for 24.4 years ($SD=5.8$).

For further analysis, we created two distinct groups within those with “no welfare” to better distinguish the role of poverty. These groupings were “no welfare and not poor” ($n=270$) and “no welfare and poor” ($n=161$) based on whether their household income in 1966–1967 fell below the federal poverty level; therefore, we had five distinct groups for which to examine the associations with other characteristics as outlined above.

Trajectory Validation

First, to check the validity of these trajectories, we examined how these trajectories, which were based on retrospective reports, were related to employment, marital status, and number of children in 1966–1967 and 1975–1976 with these groupings (see Table 2). As expected, given the criteria for receiving welfare, those in the three welfare groups at both time periods had a higher proportion of unemployed, a lower

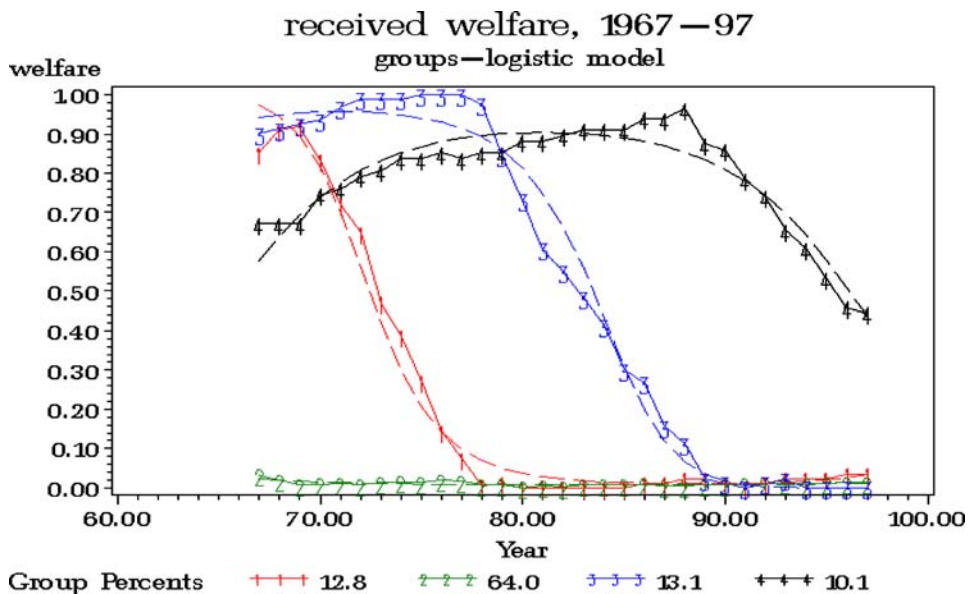


FIGURE 1. Trajectories of welfare receipt ($n=671$): 1 early leavers, 2 no welfare recipients, 3 late leavers, 4 persistent recipients.

TABLE 2 Social roles at time 1 and time 2 by welfare trajectory group

Variables	Welfare trajectory groups							χ^2 statistics/ <i>F</i> statistics	<i>p</i> value
	No welfare/not poor	No welfare/poor	Early leavers	Late leavers	Persistent recipients	χ^2 statistics/ <i>F</i> statistics	<i>p</i> value		
	<i>n</i> =270	<i>n</i> =161	<i>n</i> =85	<i>n</i> =87	<i>n</i> =68				
1966–1967 (T1; <i>n</i> =671)									
Percent unemployed	37.9	55.1	70.2	88.1	73.8	85.74	<0.0001		
Percent unmarried	18.4	56.1	67.5	72.9	58.8	133.49	<0.0001		
No. of children; mean (SD)	3.46 (1.78)	4.40 (2.04)	5.20 (2.01)	4.99 (2.26)	4.88 (2.45)	20.04	<0.0001		
1975 (T2; <i>n</i> =548)									
Percent unemployed	28.3	48.1	67.6	81.7	85.2	106.40	<0.0001		
Percent unmarried	37.2	58.6	77.5	85.9	92.6	100.37	<0.0001		
No. of children; mean (SD)	4.42 (2.26)	5.39 (2.48)	6.60 (2.47)	6.80 (3.35)	6.46 (3.02)	19.22	<0.0001		

Early leavers received welfare assistance for a mean of 6.6 years (SD=2.5), late leavers received welfare assistance for a mean of 16.1 years (SD=3.6), and persistent welfare recipients received welfare assistance for a mean of 24.4 years (SD=5.8)

proportion of married women, and higher numbers of women with children. In 1966, the *late leavers* had the highest proportion of unemployed and unmarried women. Nine years later, in 1975, the *persistent recipients* had the highest percentage of women who were unemployed and unmarried. The *early leavers* had the most children in 1966–1967 (mean=5.20), and the *late leavers* had the most children in 1975 (mean=6.80). Those who *did not receive welfare and were not poor in 1966–1967* were the least likely to be unemployed and unmarried and had the fewest children at both time points. The *poor but not welfare recipients* were more likely to be unemployed and unmarried than those *not poor and who did not receive welfare*.

Bivariate Analysis of Early Predictors and Welfare Trajectories

Next, we examined how the women in the five groups differed in their reporting of early predictors. Table 3 shows that, in 1966–1967, the women in the three welfare receipt trajectories were more likely than those who did not receive welfare to report teenage motherhood, residential mobility, chronic illness, psychological distress, and failure to complete high school. Women who were *poor and did not receive welfare* also had higher levels of almost every risk factor considered, compared to women who were *not poor and did not receive welfare*. The persistent welfare recipients had the highest rates of chronic illness, almost double that of the *late leavers* and triple that of the *early leavers*. The *late leavers* and the *persistent recipients* had the highest percentage (over 50%) of those experiencing psychological distress in 1966–1967.

In 1975, compared to the women who were *not poor and did not receive welfare*, the women in the four other groups were more likely to report residential mobility, no organizational membership, poor physical health, and psychological distress. *Persistent welfare* recipients had the lowest rates of organizational membership and the worst physical health, and they had the highest rate of psychological distress. *Early leavers* and *late leavers* had similarly high rates of psychological distress. Regular cigarette smoking was fairly comparable across all five groups, but the rates were highest among the *late leavers*. The poor but not welfare recipients were the second highest smokers ($p=0.077$).

Multivariate Analysis of 1966–1967 Factors Associated with Welfare Trajectories

We used multiple multinomial logistic regressions to examine the characteristics associated with the welfare trajectories in a single model. We first examined the effects of 1966–1967 factors on trajectory membership. We included in the multivariate analyses all independent variables that had at least a probability of 0.25 in the bivariate analysis (Table 3).⁴³ Age was included as a control variable. First, those who *did not receive welfare and were poor in 1967* were the reference group. This allowed us to focus on factors related to welfare receipt, not to poverty. Next, we compared those who stayed for longer periods (e.g., later leavers, persistent leavers) and those who stayed for a few years (e.g., early leavers).

Table 4 shows the results of the multivariate analysis of the 1966–1967 predictors. Early residential mobility and having psychological distress significantly differentiated *late leavers* and *persistent welfare recipients* from those who *did not receive welfare and were poor*. Those who moved frequently were more likely to be *late leavers* (odds ratio [OR]=1.81, 95% confidence interval [95%CI]=1.03–3.18) or *persistent welfare recipients* (OR=2.11, 95%CI=1.15–3.87). Those who had psychological distress at baseline were also more likely to be *late leavers* (OR=2.26, 95%CI=1.29–3.93) and *persistent welfare recipients* (OR=1.84, 95%CI=1.01–3.35). In addition, having a chronic illness at baseline increased the risk for being a *persistent*

TABLE 3 Distribution of risk factors among welfare trajectory groups

Variables	Welfare trajectory groups						χ^2 statistics/ <i>F</i> statistics	<i>p</i> value
	No welfare/not poor		No welfare/poor		Persistent recipients			
	<i>n</i> = 270	<i>n</i> = 161	Early leavers <i>n</i> = 85	Late leavers <i>n</i> = 87	<i>n</i> = 68			
1966–1967 (<i>n</i> = 671)								
Mean age (SD)	31.37 (5.36)	31.56 (5.44)	31.40 (5.70)	31.52 (5.79)	30.69 (5.13)		0.39	0.859
Socioeconomic resources (%)								
High school dropout	37.9	55.1	70.2	88.1	73.8		85.74	<0.000
Teenage mother	39.5	49.4	60.0	50.6	58.8		16.19	0.003
Social integration (%)								
3+ moves in the past 6 years	32.6	34.2	47.1	51.2	55.9		21.86	<0.000
Raised in the south	59.2	60.1	57.6	50.0	58.8		2.69	0.611
Health and health behavior (%)								
Chronic illness	8.1	8.7	7.1	11.5	22.1		13.37	0.010
Any psychological distress	32.3	31.7	40.0	53.5	51.5		20.55	<0.000
1975 (<i>n</i> = 548)								
Socioeconomic resources (%)								
Grew up in welfare family	15.3	20.5	24.3	18.3	20.8		3.54	0.472
Social integration (%)								
2+ moves in the past 10 years	45.9	54.0	67.1	79.3	73.5		42.89	<0.000
No organizational membership	18.8	28.7	21.1	36.6	57.4		37.08	<0.000
No/infrequent church membership	55.2	60.5	66.2	60.6	72.2		6.70	0.153
Health and health behavior (%)								
Physical health rating								
Not too healthy	9.9	18.8	22.5	33.8	38.9		40.77	<0.000
Moderately healthy	37.2	38.3	38.0	36.6	35.2			
Very healthy	52.9	43.0	39.4	29.6	25.9			
Any psychological distress	17.0	18.9	33.8	33.8	35.2		19.08	0.001
Regular cigarette use	36.1	44.9	42.4	55.2	39.6		8.45	0.077
Regular alcohol use	9.9	10.2	12.7	7.0	3.7		3.59	0.465

TABLE 4 Multiple multinomial regression of 1966–1967 (time 1) predictors of welfare trajectory membership: OR and 95%CI (n = 660)

	No welfare/hot poor; OR (95%CI)	Early leaver; OR (95%CI)	Late leaver; OR (95%CI)	Persistent receiver; OR (95%CI)
Age				
High school dropout	0.97 (0.93–1.02)	1.03 (0.97–1.09)	1.01 (0.96–1.07)	0.99 (0.93–1.06)
No	1.00	1.00	1.00	1.00
Yes	0.44 (0.29–0.66)*	1.34 (0.75–2.37)	1.60 (0.89–2.88)	1.42 (0.75–2.68)
Teenage mother				
No	1.00	1.00	1.00	1.00
Yes	0.66 (0.41–1.06)	1.58 (0.82–3.05)	0.85 (0.44–1.64)	1.13 (0.55–2.30)
Number of moves in past 6 years				
0–2	1.00	1.00	1.00	1.00
3+	0.94 (0.61–1.45)	1.64 (0.94–2.86)	1.81 (1.03–3.18)*	2.11 (1.15–3.87)*
Chronic illness				
No	1.00	1.00	1.00	1.00
Yes	0.88 (0.43–1.82)	0.73 (0.27–1.99)	1.04 (0.42–2.55)	2.62 (1.16–5.92)*
Psychological distress				
No	1.00	1.00	1.00	1.00
Yes	1.14 (0.74–1.77)	1.29 (0.74–2.26)	2.26 (1.29–3.93)*	1.84 (1.01–3.35)*

**p*<0.05; the reference group is no welfare and poor at 1966–1967

welfare recipient (OR=2.62, 95%CI=1.16–5.92). Only educational attainment distinguished between the *no welfare/not poor* and *no welfare/poor* groups. No factors differentiated the *early leavers* and the reference group (*no welfare/poor*).

We also examined the factors to distinguish between those who have stayed on welfare for longer periods (i.e., late leavers and persistent receivers) and early leavers. Chronic illness at 1966–1967 was an important factor to distinguish between early leavers and persistent recipients: Those who had chronic conditions were more likely to be in the persistent user trajectory than the early leaver trajectory (OR=3.61, 95%CI=1.30–9.98). No factors differentiated the early leavers and later leavers (table not shown).

Multivariate Analysis of 1975 Factors Associated with Welfare Trajectories

Table 5 shows the results from the multiple regression analysis of 1975 predictors of welfare trajectories. Residential mobility differentiated the three groups of welfare recipients from those who did not receive welfare but were poor at baseline. Those who moved frequently between 1967 and 1975 were more likely to be *early leavers* (OR=2.08, 95%CI=1.11–3.89), *late leavers* (OR=4.85, 95%CI=2.40–9.79), or *persistent welfare recipients* (OR=2.54, 95%CI=1.24–5.18) than *no welfare/poor* group. Those who did not belong to any organizations were more likely to be *persistent welfare recipients* than those with organizational membership (OR=2.94, 95%CI=1.43–6.06), compared to the reference group. Poor physical health was related to staying on welfare: Those with poor physical health were three times more likely to be in the persistent welfare trajectory than those who were healthy (OR=3.09, 95%CI=1.28–7.47) compared to *no welfare/poor* trajectory. Those who had poor physical health were less likely to be in the *no welfare/not poor* trajectory than the *no welfare/poor* trajectory (OR=0.43, 95%CI=0.22–0.87).

The comparisons between long-term and short-term users found the measures of social integration at 1975 to be important. Organizational membership differentiated those long-term users from short-term users: Those who had any organizational membership were more likely to be early leavers than late leavers (OR=2.36, 95%CI=1.05–5.32) or persistent recipients (OR=5.09, 95%CI=2.19–11.84). Those who moved less frequently were more likely to be early leavers than persistent recipients (OR=5.09, 95%CI=2.19–11.84; table not shown).

DISCUSSION

Despite ongoing concern about the longer duration of welfare enrollment or chronic welfare receipt among African Americans, few studies have examined long-term patterns of welfare receipt and their predictors in this population. This study set out to examine longitudinal patterns of welfare receipt among a cohort of African-American women followed for 30 years from early in their child-bearing years through older adulthood. A semiparametric group-based approach revealed four trajectories of welfare receipt: no welfare, early leavers, late leavers, and persistent welfare recipients. About two thirds of the women in this cohort had never (or very rarely) received welfare in their lifetime and half of these women lived below poverty in 1966–1967. Among those who ever received welfare, there was substantial heterogeneity for duration of welfare receipt, highlighting the diversity of welfare patterns among African Americans. Furthermore, the comparison group was those who were poor but not on welfare so we were able to distinguish the antecedents of welfare from the antecedents of poverty.

TABLE 5 Multiple multinomial regression of 1975 (time 2) predictors on welfare trajectory membership: OR and 95%CI (n=521)

	No welfare/not poor; OR (95%CI)	Early leaver; OR (95%CI)	Late leaver; OR (95%CI)	Persistent receiver; OR (95%CI)
Age				
Number of moves between 1967 and 1976				
0-1	0.99 (0.95-1.04)	1.03 (0.98-1.10)	1.04 (0.98-1.10)	1.01 (0.94-1.07)
2+	1.00	1.00	1.00	1.00
Church attendance	0.68 (0.43-1.09)	2.08 (1.11-3.89)*	4.85 (2.40-9.79)*	2.54 (1.24-5.18)*
Frequent	1.00	1.00	1.00	1.00
No/infrequent	0.95 (0.59-1.54)	1.61 (0.82-3.14)	0.86 (0.43-1.70)	1.22 (0.57-2.62)
No organizational membership				
1+	1.00	1.00	1.00	1.00
0	0.70 (0.40-1.20)	0.58 (0.28-1.21)	1.36 (0.68-2.72)	2.94 (1.43-6.06)*
Physical health				
Very healthy	1.00	1.00	1.00	1.00
Moderately healthy	0.77 (0.47-1.25)	1.10 (0.56-2.18)	1.41 (0.68-2.93)	1.41 (0.62-3.21)
Not too healthy	0.43 (0.22-0.87)*	1.23 (0.54-2.85)	2.27 (0.99-5.21)	3.09 (1.28-7.47)*
Psychological distress				
No	1.00	1.00	1.00	1.00
Yes	1.05 (0.58-1.89)	1.91 (0.94-3.87)	1.77 (0.86-3.61)	1.78 (0.83-3.82)
Cigarette smoking				
Never/infrequent use	1.00	1.00	1.00	1.00
Regular use	0.71 (0.44-1.14)	0.84 (0.45-1.59)	1.56 (0.82-3.00)	0.63 (0.31-1.28)

*p<0.05; the reference group is no welfare and poor at 1966-1967

Early social roles (i.e., marriage, employment, number of children) were associated with welfare trajectories, as would be expected given the welfare eligibility criteria at the time. Furthermore, these roles seemed to distinguish among the welfare trajectories so that persistent welfare users were less likely to ever be married or to be employed.

Educational attainment, as a measure of socioeconomic resources, was related to welfare receipt, which supports findings from earlier research on the association of welfare receipt with dropping out of school.^{5,18,42} Dropping out of high school differentiated between those who were not on welfare and were poor from those who were not on welfare and were not poor. Those who were not on welfare but poor did not differ from the welfare categories. This highlights the relationship between poverty, independent of welfare enrollment, with dropping out of high school.

Social integration was an important antecedent for those receiving welfare. Those in one of the welfare trajectories had frequent residential mobility, our indicator of structural integration. Particularly noteworthy, the “late leavers” were nearly five times more likely to move frequently between 1967 and 1975 than the comparison group. Frequent moving over the years may hinder a woman’s ability to gain employment or other means of financial stability, including marriage, thereby increasing the risk for welfare receipt, especially long-term receipt. It also may impair the making of social ties which may be especially important for those with few resources. While being on welfare may make finding stable housing difficult, our findings are longitudinal, giving some evidence that the frequent moving occurred before the welfare trajectories.

The second aspect of social integration, organizational membership, was nearly three times lower among *persistent welfare* recipients. It is interesting to note that organizational membership was not related to being an early or late leaver, but an important factor differentiating between short-term users (i.e., early leavers) and long-term users (i.e., late leavers, persistent receivers). This finding may be due to the extensive health problems reported by the long-term users or to other characteristics that prevented them from joining organizations. It could also be that those who were not involved with community organizations were a subgroup specifically at risk for staying on welfare indefinitely.

One further note on social integration: In comparing the two groups not on welfare, we found no significant effects of either residential mobility or organizational membership. Thus, it appears that these social integration factors are more strongly related to welfare receipt than to poverty. Together, these findings suggest that those who receive welfare benefits may be more socially isolated because of their welfare status rather than because of their poverty.

Psychological health was related to welfare trajectory membership. Those who were long-term users were more than twice as likely as those who were poor but did not receive welfare to report psychological distress at the early assessment period in 1966–1967. This suggests that experiencing psychological distress may prevent individuals from being able to find and/or maintain employment and relationships that would allow them to leave welfare sooner. We did not find a significant relationship between welfare receipt and psychological distress at the second assessment in 1975 nor did we find a relationship between psychological distress and *early leaving* (short-term receipt). It may be that experiencing psychological distress early in the child-bearing years is particularly damaging to long-term employment and marriage prospects. We know that those with depression, in particular, are compromised at tasks related to employment and social relationships.³ It may be that, for poor women, psychological

distress makes one particularly vulnerable to welfare receipt. It could also be that some unknown cause of the psychological distress is also related to long-term welfare receipt. Our findings do not rule out the possibility that welfare may lead to or exacerbate psychological distress.

We also found that physical health was related to welfare receipt. Those who were *persistent welfare recipients* were more likely to report chronic condition in 1966 compared to those who were poor but not on welfare. This chronic illness also differentiated between long-term users and short-term users. We suspect that the physical health problems may have prevented marriage and employment which may lead to prevent them from getting off welfare and living without government assistance. In addition, receipt of welfare entitled these women to Medicaid coverage, which would provide access to health care. The types of jobs available to these women, in addition to being low-paying, may not have provided insurance benefits. We also found that physical health distinguished between the two groups not receiving welfare: Those who were not poor were significantly less likely to report health problems in 1975 than those who were poor. This reinforces the relationship others have found between poverty and poor health.⁴⁴⁻⁴⁷

We did not find the trajectories to differ in terms of socioeconomic resources (e.g., teenage motherhood, family history of welfare receipt) or in terms of substance use. While others have found substance use to predict welfare receipt, we found that alcohol and cigarette use (there was very little illegal drug use in this population) did not differentiate those who received welfare and those who did not, but were poor. The age and cohort of the women may be a factor. The women examined here were from an older cohort of Black women, and they reported very little use of illegal substances.⁴⁸ In a separate study of these mothers' daughters, however, welfare receipt was related to illegal substances, suggesting a cohort difference.²⁵

While this study has numerous strengths, a number of limitations need to be mentioned. First, our trajectories rely on retrospective welfare reports, which may lead to some misreporting. However, these reports were validated by comparing retrospective reports with concurrent reports made 22 and 30 years earlier. Thus, we are confident that the trajectories identified are a good representation of patterns of welfare receipt in this community cohort of urban African-American women. A second consideration is the generalizability of the findings. Our population differs from other studies of welfare recipients in terms of the length of time that the women who were recipients remained on welfare. Because studies examining long-term welfare patterns are scant, it is unclear whether similar patterns will be found in other populations. Furthermore, these results identify patterns of welfare receipt before the 1996 Welfare Reform, which was designed to transition individuals off welfare after brief welfare participation. Patterns today may look substantially different. We were also unable to capture those who cycled on and off welfare, which may be yet another distinct group.

The strengths of the study include the long period over the life course that the women were followed, the relatively high rates of follow-up, the ability to compare those on welfare with those not but who were poor, the ability to compare women from the same community, and the ability to explore differences between short-term users and long-term users.

In sum, social integration, physical health, and psychological distress are all related to welfare receipt. Compared to poor women who were not welfare recipients, women who are *persistent welfare receivers* are more likely to report poor social integration and poor physical and psychological health. *Late leavers* also report low social integration and high psychological distress, but they do not report poor

physical health as do the persistent receivers. *Early leavers* have only one significant risk factor—high residential mobility. These findings indicate that there are key social integration and health factors that differentiate trajectories of welfare receipt.

There are a number of implications for policy makers and social service agencies. The finding that persistent welfare recipients may have specific health needs that increase their likelihood of welfare dependency highlights a need for recognition by policymakers that not all long-term use can be shortened with job training and/or limits on periods of welfare receipt. Special allowances could be considered for those who are physically or psychologically unable to work. The finding that those who are late to leave welfare have higher levels of mobility and psychological distress than those who are poor but not on welfare points to areas of intervention by community and social service agencies. Assisting with residential security and prevention and/or treatment of psychological problems could enhance employment opportunities and reduce the length of time a woman is enrolled on welfare. Moreover, they may command less attention in the public policy since they are no longer child-rearing. However, they still represent a population with high health care needs outside the safety net.

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