

THE ROLE OF TRANSPORTATION DISADVANTAGE FOR WOMEN ON COMMUNITY SUPERVISION

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Access to transportation (i.e., walking, public transit, personal vehicles), or lack thereof, has not been extensively explored in criminal justice samples. Consequently, mixed-methods study of 366 women on probation and parole is the first to define transportation disadvantage, document its prevalence, and explore the problems related to it. Findings point to four themes, discovered in quantitative data analysis and buttressed by qualitative accounts, that illuminate the importance of transportation to justice-involved women. First, women have extensive transportation deficits at the individual level (e.g., they have poor physical health). Second, women rely heavily on social support. Third, women have deficits at the community level (e.g., they reside in inaccessible areas). Fourth, women have trouble identifying transportation-related problems directly, but through their narratives identify 10 distinct types. Further, transportation was a pressing concern for 42.6% of women that coincides with other needs such as health, safety, employment, neighborhood accessibility, and social support.

Keywords: community supervision; transportation disadvantage; women

In many parts of the United States, access to affordable, efficient, and dependable transportation encompasses both availability of public transit and support from family and friends, but it primarily refers to car ownership. Fundamental to obtaining and maintaining employment (Blumenberg, 2004; Sandoval, Cervero, & Landis, 2011), car ownership is more important than either education or work experience for low-income single mothers (Lichtenwalter, Koeske, & Sales, 2006). Low-income individuals with cars, compared with those without cars, miss fewer days of work, experience fewer health risks, and live in stronger housing markets (Lambert, 1998; Pendall et al., 2014). By increasing access to both health programs as well as medical services (Cvitkovich & Wister, 2001), access to dependable transportation can improve overall health. On the other hand, lack of access to

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transportation, or transportation disadvantage, can result in problems such as increased levels of stress, mental health issues, reduced labor productivity, decreased employee performance, and absenteeism (Cox, Griffiths, & Rial-Gonzalez, 2000; Gottholmseder, Nowotny, Pruckner, & Theurl, 2009; Jacobson et al., 1996). Thus, for low-income women, transportation access plays an important role.

While transportation is an issue for low-income women, women involved in the criminal justice system (i.e., justice-involved women) may have even greater need for two reasons. First, these women are often required by community supervision to attend meetings for addiction or mental health, to secure housing, to actively apply for jobs, and to appear for weekly supervision meetings (Greenfield & Snell, 1999; Holtfreter, Reisig, & Morash, 2004). Getting to all these places requires access to reliable and affordable bus systems or automobiles. However, the number of justice-involved women who have access to transportation to get to the places they must travel has not been established by criminal justice research. Second, justice-involved women, compared with justice-involved men, are more likely to face challenges such as poverty and unemployment, unsafe housing, current depression and anxiety symptoms, psychosis symptoms, anger/hostility, adult victimization, parental stress, and relationship dysfunction (Belknap, 1996; Bloom, Owen, & Covington, 2003; Covington & Bloom, 2003; O'Brien, 2006; Owen & Bloom, 1995; Richie, 2001; Schram, Koons-Witt, Williams, & McShane, 2006). These financial, health, and housing challenges are often exacerbated by transportation issues. Given that transportation is crucial both to meeting community supervision requirements as well as to addressing financial, health, and housing challenges, research should examine justice-involved women's access to transportation, the types of problems they encounter with transportation, and what strategies they use to overcome those problems.

LITERATURE REVIEW

The importance of transportation in the general population cannot be understated. For women on probation and parole, access to transportation such as a car, buses, or safe walking routes may be even more important as they attempt to secure housing, obtain employment, and meet the other demands of reentry. Yet, women on probation and parole, compared with other groups, find their transportation situation more likely to be negatively influenced by several factors: income, health, neighborhood crime rate, strict licensing laws, and social support (Cobbina, Morash, Kashy, & Smith, 2014; Holtfreter et al., 2004; Maruschak & Berzofsky, 2015).

Women on probation and parole are more likely to be low-income than justice-involved men (Holtfreter et al., 2004). Improving their financial situations can be challenging for these women. Gaining employment is the best way to improve financial conditions, but women exiting prison are less likely than men to have benefited from job training or education programs in prison (Belknap, 2007; Morash, Haarr, & Rucker, 1994; Salisbury & Voorhis, 2009). Further, many women on probation and parole reside in poverty-stricken neighborhoods where there is high unemployment and there are limited opportunities for economic advancement (Cobbina et al., 2014; Owen & Bloom, 1995; Richie, 2001). Transportation access can affect financial situations by providing—or inhibiting—women's ability to search for jobs, to go to job interviews, to get to work reliably, and to earn wages.

Women on probation and parole are more likely than men in the same position to be in poor health. Research has found that females in prison and jail were more likely than males to report a chronic health condition such as cancer, high blood pressure, diabetes, heart-related problems, kidney-related problems, arthritis, asthma, and cirrhosis of the liver (Maruschak & Berzofsky, 2015). Serious health conditions such as these impact transportation in two ways. For those unable to walk, the use of public transit is restricted; for those unable to see, the ability to drive is restricted. Transportation problems can also affect health problems indirectly by interfering with women's abilities to get to necessary medical appointments. In turn, transportation problems, such as walking long distances or sitting for extended time on buses, may exacerbate health problems for those who are unwell. On the other hand, better access to transportation has been shown to increase access to medical services and health and social programs, thereby improving one's health (Cvitkovich & Wister, 2001).

Compared with other women, women on probation and parole commonly live in disordered, unsafe neighborhoods characterized by unemployment, poverty, and high crime rates (Cobbina et al., 2014; Petersilia, 2003; Richie, 2001). Residence in these neighborhood environments limits women's transportation options when they feel unsafe standing at bus stops or walking from place to place (Cobbina et al., 2014). Residence in these problematic places can be prolonged due to transportation problems. For example, when residents are unable to get reliable bus service out of these areas into other areas where more and better paying jobs are located, they are stuck working and living in the same place. While it would be hard to change someone's neighborhood, better transportation access could mitigate the disadvantages of living in those neighborhoods by providing a bridge to locations with better jobs.

Strict state licensing laws often disproportionately impact justice-involved women due to their high levels of substance use (Bloom et al., 2003; Covington & Bloom, 2006). Substance abuse problems quickly translate to transportation problems when 16 states require a minimum of 6-month suspension of driving license for drug possession charges (Cauchon, 2014). The loss of a license, as well as the thousands of dollars of fees required to reinstate the license, compound women's problems getting from place to place such as attending substance abuse treatment. Women with substance abuse issues may face a unique transportation disadvantage.

Similar to low-income women or justice-involved men, women on probation and parole rely heavily on social support for help with housing, employment, and childcare (Morash, 2010; O'Brien & Harm, 2002). However, unlike other groups, these women are likely to encounter challenges in receiving social support. Justice-involved women who have a supportive family relationship do better on community supervision than those without them in terms of recidivism, substance abuse, and mental health outcomes (Dowden & Andrews, 1999; Slaght, 1999). Cobbina (2010) found that women probationers and parolees perceived family and social support as the most critical factor in successful community reentry. Support from family or friends can translate into rides to job interviews, grocery stores, medical appointments, supervision appointments, and other required appointments (e.g., urine tests, substance abuse treatment, court dates, etc.). Support from family or friends may also mean money for a bus ticket or someone to walk with you through an unsafe neighborhood.

Although social support is important to their success, justice-involved women are likely to have had social support networks severed while in prison. Because of the remote and inaccessible locations of women's prisons, social support ties with family members are likely to be strained or severed (Coughenour, 1995; La Vigne, 2005; Shollenberger, 2009; Travis & Visser, 2005). Another challenge is social reciprocity. Women who have few resources to exchange are unable to provide support in kind, and risk rapidly depleting personal resource networks. Soon, unable to reciprocate help to others in their support networks, they find themselves cut off (Offer, 2012). When this situation occurs, women's employment and economic success are threatened. In response, some women turn to broader support networks (Leverentz, 2011) or to government benefits (Harding, Wyse, Dobson, & Morenoff, 2011). With continued cuts in government benefits (Morash, Kashy, Northcutt Bohmert, Cobbina, & Smith, 2015), the role of social support is increasingly important and interruptions to that support are felt more intensely.

Taken together, the research literature illustrates that women on probation and parole, compared with other groups, encounter greater risk factors such as poverty, poor health, residence in an unsafe neighborhood, increased levels of substance abuse, and tenuous or fractured social support systems (Cobbina et al., 2014; Holtfreter et al., 2004; Maruschak & Berzofsky, 2015). Key to addressing women's increased needs, access to transportation has been found to be even more important than education or work experience in obtaining and maintaining employment (Blumenberg, 2004; Lichtenwalter et al., 2006; Sandoval et al., 2011). Yet, those studies have been conducted on low-income women, not women involved in the justice system. Previous studies of justice-involved women have not expounded on the characteristics of transportation or its relationship to women's other needs. Therefore, we need to know more about justice-involved women's experiences with transportation.

CURRENT STUDY

In the present study, the role of transportation disadvantage is examined in the lives of justice-involved women. Transportation disadvantage refers to a lack of access to dependable, affordable, and reliable transportation. Using survey data ($n = 366$), the first step is to discover the number of justice-involved women experiencing transportation disadvantage (e.g., the number who are unable to walk or drive, who lack access to a car or to public transit, who live in unsafe neighborhoods). Once prevalence is established, in-depth interview data ($n = 75$) are utilized, first to establish a clearer understanding of the problems transportation disadvantage creates, and second to learn how transportation ranks among women's other concerns. Narrative accounts from justice-involved women provide evidence of how challenges such as financial problems, health concerns, neighborhood safety, and access to cars and buses accumulate with transportation disadvantage.

METHOD

RESEARCH DESIGN

The study employs a mixed-methods sequential explanatory design (Creswell, 2008; Ivankova, Creswell, & Stick, 2006) to collect and analyze data. First, quantitative data were analyzed to address the extent and distribution of transportation disadvantage for women on probation and parole. This analysis provided the basis for selecting potential participants for

the qualitative data collection comprised of in-depth interviews that examined the types, intensity, and comparative importance of transportation problems.

DATA AND SAMPLE DESIGN FOR QUANTITATIVE ANALYSIS

The sample¹ for the quantitative data analysis came from a broader study of 402 drug-involved women on probation or parole who were convicted of a felony offense in the state of Michigan. Each woman was interviewed three times; interviews were conducted between November, 2011 and November, 2013. The sampling process involved first recruiting 73 parole and probation agents from across the state. The 16-county sample encompassed rural, suburban, and all major population centers (e.g., Detroit, Grand Rapids) in the state. From each agent's caseload, approximately eight clients were recruited. Women were interviewed after approximately 2, 5, and 8 months of supervision had passed. At the second interview, 390 women (97%) were re-interviewed, and at the third interview, 379 (94.3%) were re-interviewed. Although 379 women participated in the Wave 3 interview, 12 of them were institutionalized (i.e., in jail, prison, or inpatient substance abuse treatment) and one woman was too physically ill to leave her home; these 12 cases were censored for this study. As a result, the sample for this study includes the 366 women who could appropriately answer questions about transportation disadvantage. Independent sample *t* tests examining differences between the means revealed there were no significant differences between the full and reduced samples.

QUANTITATIVE MEASURES

In the third wave of data collection, measures of transportation disadvantage were conceptualized at three different levels: individual, family, and community. At the individual level, women were asked whether they owned/leased a car, had access to a registered and insured car they could borrow, and whether they had a valid driver's license. Each item was coded yes (1) or no (0). Following measures used by Dupuis, Weiss, and Wolfson (2007), physical health questions focused on one's ability to walk and see, and on overall health. Women were asked to rate their overall health as *excellent*, *very good*, *good*, *fair*, *poor*, or *very poor*. This variable was dichotomized to indicate poor or very poor (1) versus other categories. Women were asked, "Do you have difficulty walking a block (or 150 m) in summer?" and "Is your vision, even with glasses and/or contacts, poor?" Answers to both questions were coded so that a high score indicated poor health.

At the family and friends level, data on the number of people providing transportation-related support were available from two sources. First, an add-on item to the Social Network Inventory (Estroff & Zimmer, 1994) elicited the number of people who would provide transportation-related help to a woman (e.g., give a ride or bus money). Second, women were asked to indicate the degree to which they could count on family and friends to (a) help them get to places, (b) help their children get to places, or (c) give them money to get to places. Participants could *strongly agree*, *agree*, *disagree*, or *strongly disagree*. Finally, to capture an overall measure of women's perceptions of their transportation situation, participants were asked to indicate their agreement (strongly agree, agree, disagree, or strongly disagree) that they had access to dependable transportation meaning "they had money for bus fare, gas for a car, a dependable car when they need it."

At the community level, four measures were available for accessibility and safety of neighborhoods. Each woman's residential address was linked to two sources of publicly available data on accessibility: Walk scores and Livability scores (AreaVibes, 2014; Walk Score, 2014). These accessibility measures utilize a variety of data sources (e.g., Google, Open Street Map) to rate neighborhoods by availability of goods and services as well as safety, cost of living, education, employment, housing, and weather. Both scores range from 0 to 100; the higher the score, the better the location. Livability scores provide a measure of overall accessibility as well as subscores for each dimension; two were utilized for this study: (a) proximity of amenities and (b) crime. For proximity of amenities, the distance from the address to places such as grocery stores, pharmacies, and schools was used to generate this score. The crime dimension was derived from Uniform Crime Report data on two main categories of crime: violent crime (murder, rape, robbery, and assault) and property crime (burglary, theft, and vehicle theft). The Livability website calculates the total crime index based on all crimes; higher weights are given to violent crimes, and the score is based on comparisons to both state and national averages. Less than 3% of the sample had missing data on any given variable, most often due to the respondent skipping a question during the interview. Missing data were set to the mean value for the variable.

DATA COLLECTION AND SAMPLE DESIGN FOR QUALITATIVE ANALYSIS

Qualitative sample

A purposive subsample of 75 women was recruited from the sample of 366 women interviewed in the quantitative study. Women were selected based on their responses to quantitative indicators so that women with various levels of access to transportation disadvantage would be included. To recruit the sample, researchers called each woman's primary contact number(s) and sent letters to each woman's primary address. None of the women contacted declined to be interviewed. Face-to-face interviews were scheduled at either the woman's home or at a public location close to the woman's home (e.g., a coffee shop, restaurant, or public library), contingent on the woman's preference. A monetary incentive of \$50 in cash was offered as well as small amounts of cash (\$5 to \$7) to offset bus fare or to give gas money to people who provided rides. At the time of the interviews, most women were on probation or parole for a 12- to 24-month period. Interviews were audio-recorded and transcribed. The recruitment and interviews occurred over a 3-month period.

T tests examining differences between the means for the quantitative sample ($n = 366$) and the qualitative sample ($n = 75$) revealed there were no significant differences between the full and reduced samples. Yet, because the group of 75 women were purposively sampled to include those with differing levels of transportation disadvantage, it is important to remember that these groups are not intended to be representative of the larger sample or a larger population. The ability to generalize to a larger group of justice-involved women should be addressed with future research.

Qualitative measures

A semi-structured interview format, which allowed for considerable probing, was used to provide women wide latitude in describing their access to transportation. Women were asked to talk about any transportation problems they had experienced in the past 5 years. Data used to answer these questions come from responses to several questions:

- Looking back over the past 5 years, when you did have transportation problems, what were they?
- Currently, would you say that the way you get to and from supervision appointments, grocery stores, appointments, and so on, is stressful or complicated—or easy and not worrisome?
- Currently, do any of your arrangements for getting around place you in danger or in a difficult situation?
- Overall, thinking about the ways you arrange transportation, now or in the past, what is hard or easy about it?

To place transportation problems into the context of women's other problems, women were asked to report their top three concerns at the moment. Additionally, interviewers probed for the intensity of each transportation problem women reported. On the life history calendars (Roberts & Horney, 2010), women were asked to recall the following over the past 5 years:

- Three significant events that had occurred;
- Which months they were institutionalized (i.e., times during which transportation was not relevant);
- Which months they received help from family, friends, or social services for transportation;
- Which months they received help for things other than transportation such as food, money, or housing.

Life history calendars were used to help women more accurately recall the timing of transportation events (e.g., losing a driving license) as well as the presence of other co-occurring events (e.g., arrest).

The audio files from the interviews were transcribed and formatted into specialized templates that could be read into the qualitative data analysis software, NVivo. The software was primarily used to organize, code, establish intercoder reliability (Hruschka et al., 2004), and analyze data. Intercoder reliability was established for the types of problems (Cohen's kappa = .912) women reported and for the intensity of each problem reported (kappa = .735). Consistent with Cicchetti (1994), these kappa values represent excellent and good intercoder agreement, respectively (see Hruschka et al., 2004, for a comprehensive analysis of acceptable cutoff values for Cohen's kappa).

RESULTS

EXTENT OF TRANSPORTATION DISADVANTAGE

No one factor fully accounts for the overall picture of disadvantage justice-involved women confront related to transportation. Rather, their experiences reveal a complex interplay among three themes: disadvantage at the individual level, reliance upon often unreliable personal support networks, and community-level needs. While these themes emerge from each narrative, they are interwoven in unique ways in each circumstance, suggesting the complexity—and shortsightedness—of addressing them individually. Moreover, despite what researchers see as consistent evidence of these needs, women themselves did not identify transportation as a pressing concern. This gap, between researcher and participant identification of transportation concerns, itself then emerges from the narratives as a fourth thematic disadvantage.

TABLE 1: Descriptive Statistics for Measures of Transportation Disadvantage (n = 366)

Variable	Range	<i>M</i>	<i>SD</i>
Dependable transportation	1-4	3.20	0.891
Individual-level factors			
Does not own/lease vehicle	0-1	0.68	0.467
Does not have access to reg./insured vehicle	0-1	0.37	0.482
Does not have valid driver's license	0-1	0.58	0.493
Poor, or very poor, physical well-being	0-1	0.13	1.181
Difficulty walking	0-1	0.23	0.420
Poor vision	0-1	0.29	0.453
Family and friend factors			
Number of family/friends who can help	0-13	3.05	2.156
Has help from family/friends for self	1-4	3.14	0.854
Has help from family/friends for children ^a	1-4	3.37	0.772
Can get money from family/friends	1-4	2.85	0.905
Community factors			
Overall accessibility (Walk score)	0-91	41.53	21.024
Overall accessibility (Livability score)	53-84	69.52	5.185
Proximity of amenities (Livability score)	1-9	6.13	2.377
Safety (Livability score)	1-9	3.30	2.787

^an = 228.

At the individual level, descriptive statistics reveal that women in the sample have significant transportation-related disadvantages (see Table 1). Over half of the women in the sample do not have their own vehicle (68%) or a valid driver's license (58%). Thirty-seven percent of them are unable to borrow a car from friends or family. In short, for most women, access to a personal vehicle is quite limited. Yet, Lichtenwalter and colleagues (2006) find that personal vehicles are even more important than education or previous work experience to obtaining employment. In addition, at the individual level, considerable numbers of women report physical health limitations, such as difficulties walking (23%), having poor vision (29%), or being in poor health (13%). Physical limitation such as these could limit the use of alternative forms of transportation such as walking or biking. This challenge at the individual level is in line with prior research that shows women are likely to be in poor health (Maruschak & Berzofsky, 2015).

At the friends and family level, on average, women report they can rely on three friends or family members to help them with transportation-related needs. Women, on average, strongly agreed they can rely on their family and friends for transportation-related support for themselves ($M = 3.14$, out of 4) and their children ($M = 3.37$, out of 4). As far as receiving money from family and friends, women also agreed they had support ($M = 2.85$, out of 4). Across all four measures, women report high levels of anticipated help from others. This reliance on the help of others, the second theme, is in line with research that suggests family and friends are a common, and crucial, source of support (Cobbina, 2010; Dowden & Andrews, 1999; O'Brien & Harm, 2002; Slaght, 1999). This finding also raises concerns for women who lack family support but have extensive individual-level needs.

At the community level, an average Walk score of 41 (out of 100) indicates women are living in areas rated as "car dependent," or areas without nearby grocery stores, sidewalks, or buses that come frequently enough, if at all. Walk scores below 50 indicate dependency

on cars for most or all errands. Scores 50 to 69 indicate areas that are “somewhat walkable” in which some errands can be accomplished on foot. Scores of 70 to 89 are rated as “very walkable” and most errands can be accomplished on foot. Almost no women in the sample live in “walker’s paradise” in which daily errands do not require a car. For example, living near the University of Michigan in downtown Ann Arbor, Michigan, is rated as a “walker’s paradise.” By contrast, living 10 miles south of the Michigan State University’s campus in a rural farm area is rated as car dependent. Most women in the sample live in areas better characterized as “car dependent” than “walker’s paradise.” In light of the first theme, individual-level disadvantage, that women do not have cars or valid driver’s licenses, this finding is particularly troubling.

A second accessibility metric is available using Livability scores. The average overall Livability score (69.5 out of 100) and average Livability score for proximity of amenities (mean of 6.1 out of 9 points) indicate that women are living in less accessible locations. In other words, they are living in places in which grocery stores, restaurants, schools, parks, libraries, public transportation, and fitness facilities are farther away from their homes, compared with other U.S. cities.

Also important to note is the low rating for neighborhood safety ($M = 3.3$ out of 9). This crime indicator examines both violent and property crimes, applying a higher weight to violent crimes. This subscore is based on comparisons to both state and national averages. Placed into context, women in this sample, compared with women living elsewhere in the state and in the country, live in areas of high crime. This finding suggests that it may not be safe for women to walk or take buses to and from their homes. Therefore, some of the disadvantages women face can only be addressed at the community level. This finding, the third theme, is in line with research that shows women live in both unsafe and economically depressed locations where jobs are difficult to access (Cobbina, 2010).

INTERWOVEN NATURE OF THE THEMES

For researchers, separating these transportation disadvantages into tidy, thematic units is useful. When we talked to women, however, several inseparable themes were woven in one story. As the narratives will illustrate, women recounted many problematic experiences (see Table 2), and it was quite common for women to report several problems as co-occurring. Most often, women reported two to three problems (37.3%, 22.7%, respectively). Some women reported up to four (12%) and six problems (1.3%). Only 5.3% of women reported experiencing no problems. These findings are consistent with gender-responsive programming literature that suggests that correctional programming must consider women’s needs holistically (Bloom et al., 2003; Covington & Bloom, 2006; Wright, Salisbury, & Van Voorhis, 2007).

INDIVIDUAL-LEVEL PROBLEMS HELPED BY SOCIAL SUPPORT

At the time of her interview, Penny Rinelli was 47 and lived in a suburban area outside a large city. She was on probation and struggling to complete drug treatment. Penny encountered extensive challenges at what we call the individual level. Her life was demarcated by several health problems: mental health issues, chronic back pain, another serious health condition, and drug addiction. Several years ago, she committed check fraud and received a drug-related conviction for calling in her own prescriptions when she lacked funds to go

TABLE 2: Transportation Problems and Intensity Levels

Type of problem	Example	Intensity of problem			Row totals	Women reporting
		Minor	Moderate	Severe	<i>n</i> (%)	(%)
Coordinating help	Challenging to align others' schedules	65	37	23	125 (24.8)	56
Legal problems	No license or money to reinstate license, pay for registration, insurance, or fees	31	21	29	81 (16.0)	33
Car problems	Car breaks down often	27	22	18	67 (13.3)	32
Inadequate buses	Buses take a very long time; there is limited or inadequate service	22	18	14	54 (10.7)	22.7
Cost	No money for bus; no gas money	18	23	9	50 (9.9)	20
Unreliable help	Rides often show up late or not at all	13	22	13	48 (9.5)	22.7
Safety concerns	Neighborhood isn't safe to drive or walk	10	14	7	31 (6.1)	12
No help available	No family or friends who can help	4	10	6	20 (3.9)	8
Health problems	Medical condition prevents driving	12	2	2	16 (3.2)	8
Weather conditions	Buses are off-schedule due to weather	8	3	2	13 (2.5)	4
Total problems		210	172	123	505	
Column totals (%)		(41.5)	(34.1)	(24.4)		

Note. The unit of analysis is transportation problems ($n = 505$), except for last column which is women ($n = 75$).

to the doctor. She admitted that her transportation problems had affected her mental health; she was not attending counseling appointments because the Medicaid-provided transportation service required 4 days' advance notice, which did not coordinate well with the scheduling protocols of the one Medicaid-accepting counselor.

Recently, because she could not afford the repairs to her car, Penny sold it. Being unable to afford the direct costs of transportation was a problem reported by 20% of women in the sample. Like 32% of women in the sample, Penny experiences car problems that have interfered with her supervision. In the 12 months she was on probation, she missed five probation-related appointments due to transportation problems (e.g., running out of gas).

Consistent with prior research (Cobbina, 2010), many women rely heavily on social support to make ends meet. Penny has a son who attends an alternative high school. Getting to the school requires several transportation steps; first, his grandmother picks him up and brings him to the local high school where a bus then takes him to his school. Penny's strong family support has enabled her son to attend a school that has turned his life around. Research highlights that women, more often than men, are more likely to have children, and have primary custody of them (Covington, 2002; Glaze & Maruschak, 2008).

Although prior research underscores the importance of personal support networks, many women in the sample lack this crucial piece (Dowden & Andrews, 1999; Slaght, 1999). For women in this sample, 8% reported not having anyone to provide transportation help. Another 22.7% said they had help, but it was from unreliable people (22.7%). An

overwhelming 56% of women reported difficulty arranging rides with people. Even for women who have social support, many rely exclusively on romantic partners for help. These arrangements are precarious because if the relationship dissolves, the woman's transportation help disappears.

Brooke Johnson, (47, urban) was aware of the precariousness of her situation; she explained, at the time, she had access to dependable transportation because "[she's] married . . . but if [she] wasn't married, [she'd] be screwed." Mallory Sliver, (38, urban) has one older daughter and one sister, but at the time of her interview both lived too far away to provide much help. She explained that she had few friends and none had cars. Lacking close personal support—consistent with the literature (Harding et al., 2011; Leverentz, 2011)—she moved to a broader network. Aside from her boyfriend, Mallory's greatest help came from a woman she met in prison who had the same parole agent. They would take the bus to parole together, but communicating with felons is technically forbidden by parole so they had to be careful to stagger their arrivals. These accounts support the assertion that women rely on family and friends to remain mobile. These accounts also highlight that women could use more people, or more reliable people, to support them.

Even though Penny had some social support, Penny has missed mental health services, missed supervision appointments, and experienced delays and harassment on the Medicaid-provided transportation service. She explained,

You just have to call and give them like four days' notice . . . And sometimes they're 20 min late. They seem to get you where you need to go . . . It can be stressful, yeah. It can be stressful . . . And then I have this one guy who's an older guy and he was just like had the biggest crush or something. "Girl, you look beautiful. I can't believe your age." He just went on and on about it, you know what I mean. Thank you, thanks, and slips his number to me. I'm like okay, bye . . . It just sort of intimidates you because you're going to get in the car and you don't know.

As the earlier discussion indicates, Penny had severe individual-level problems. Her health problems contributed to transportation problems. These transportation problems then led to safety problems for her, inability to attend mental health appointments, and education challenges for her son. Penny's account is typical of justice-involved women: She struggles with mental health and substance abuse issues.

INDIVIDUAL-LEVEL PROBLEMS WITHOUT SOCIAL SUPPORT

Mabel Day (61, rural resident) went to prison for killing her husband after many years of sexual and physical abuse. Because she was able to hire an attorney, her time in prison was greatly reduced. However, the attorney took possession of Mabel's house, furniture, social security payments, and life insurance policies as payment. The lawyer even put charges on Mabel's credit cards to pay for legal fees. Mabel, like 33% of women in the sample, cited legal problems and related costs as problems that intersected with transportation (see Table 2). At the time of the interview, Mabel was living alone in an apartment. Like 8% of women in the sample, Mabel experienced health problems that impeded travel. She was disabled and in a wheelchair. She hadn't driven a car or walked in many years and relied on various specialized bus services to get to all her supervision appointments, doctor visits, and errands. She had no friends or family to support her.

After describing four to five chronic health conditions, Mabel explained,

[I]f it was not for bus service, I have no idea what I would do. I started using the bus the minute I—well, not the minute—within a few days—after I was paroled over to the homeless shelter. And I have the county bus service, the Connect, and I also have—I had to be authorized and I have an ADA bus, which is Americans with Disabilities Act, and—yep, that’s what I do. That’s how I go. Gotten pretty good at it. Yeah, within the county, so long as they have—they’re not booked, you know? I ride that for free and I also get coupons from the county for the Connect, which I can hand in one ticket; that’s a ride I don’t have to pay for and another ticket on my way back. Then, like I said, I have Americans with Disabilities Act.

Her story then turned to how the bus service presented safety issues. Safety issues were reported as problems by 12% of the women in the sample. As she reported,

Most of the bus drivers are really good. But also, like most things in life, it depends on how you treat them . . . There was a couple bus drivers who were kinda sleazy, but—I eventually got them to stop. [They were] trying to cop a feel . . . and talking about just like something like, about how good it was to be between my legs and just crap like that . . . You’d be surprised how many little old lady hunters there are. This one guy . . . I thought he was nice at first . . . he helped me carry my groceries in, and he picked up my key to my apartment—my extra key that I have . . . and I saw him do it, and he left, and I called him, and—you know? “I didn’t do that.” Yeah, well . . . they changed the locks so I know he doesn’t have it but this ain’t no nice man. He’s apparently done something else because he did get fired, but I don’t know. That was not a nice guy . . . Learned a good lesson, in any event.

Mabel and Penny experienced several individual-level problems (i.e., health problems and safety concerns) that intersected with transportation. Transportation had a prominent role in exacerbating already troubling circumstances of poor health and lack of family or friends. Mabel also highlighted how women who lack social support feel the consequences of transportation disadvantage (i.e., her personal safety) more acutely. The second factor, reliance on social networks, even exposed her to potential physical threat.

When the interviewer asked Mabel to explain her problems more, Mabel first asserted that she did not consider her experiences transportation problems, but then continued to detail further problems with the bus service, something 22.7% of the sample also reported, as well as problems with weather (a concern of 4% of women):

Yeah, well, it’s—no, no problem. That’s—I really am grateful. I wouldn’t go as far as to say stressful, but it’s not entirely easy and uncomplicated. You have a set time that they’re coming, but within that, they have 45 min to get there. And you have to sit, and watch, and wait, watch—and if you’re not there, they will leave you . . . So, I have to go outside, and if it’s raining, or it’s whatever, there I am sitting out there.

When asked directly about transportation problems, Mabel agreed at both the previous interview and the follow-up interview that she had access to dependable transportation. Although Mabel did not perceive herself as having even one transportation problem, in the process of traveling she was sexually harassed, had her house key stolen by a bus driver, felt fearful the bus driver would return, waited outside in bad weather, and spent considerable time waiting for inadequate bus service. Despite extensive needs at the individual, social, and community level, Mabel did not define herself as having difficulties with transportation.

In this way, the fourth theme captures many other women in the sample who, like Mabel, recounted many transportation problems but did not consider themselves transportation disadvantaged. In fact, in Table 1, on average, women agree that they have access to dependable transportation ($M = 3.2$ out of 4). A score of one would indicate that women do not have dependable transportation, whereas a score of four indicates strong agreement that women do have dependable transportation.

Further evidence of the theme, that definitional differences exist between researchers' and women's perceptions of what constitutes problematic experiences, is shown in the category of legal problems (Table 2). The category of "legal problems" captures women who do not drive because they do not have a valid license ($n = 2$), women who drive even though they do not have a valid license ($n = 19$), and women who have expired license plates or vehicles that are not street-legal ($n = 4$). In the course of the interviews, 33% women ($n = 25$) discussed experiences that the coder labeled as a legal problem. Yet, only two of those women perceived that they had problems (i.e., they brought up the legal problems on their own, in the section of the interview related to "transportation problems"). The other 23 women disclosed information about legal barriers to driving in other sections of the interview and not in response to questions about transportation problems. Therefore, although the interviewer viewed lack of license as problematic 23 times, women only did so 2 times.

Mabel's narrative suggests several policy implications. First, women's transportation problems will not be identified by asking women directly; researchers and practitioners must be aware of this constraint. Because women like Mabel will minimize their problems, researchers and practitioners must find alternative ways to diagnose, address, and remedy transportation concerns. Second, as research would suggest, for women with both limited personal support networks and health problems, transportation is particularly problematic (Cobbina, 2010; Dowden & Andrews, 1999; Slaght, 1999). Third, co-occurring needs are both common among women on community supervision, and must be addressed in tandem (Bloom et al., 2003; Covington & Bloom, 2006).

POOR NEIGHBORHOODS, LACK OF FAMILY SUPPORT, AND SUBSTANCE ABUSE

Gracie Awad was 37 and had no children or family support. Common among justice-involved women, her crimes revolved around supporting her drug addiction (Bloom et al., 2003; Covington & Bloom, 2006). For example she had charges for selling drugs and prostitution. For Gracie, community-level disadvantage was strongest: the concern that most influenced her daily routine was living in an unsafe and inaccessible neighborhood. Although she had several strategies for staying employed, despite not having a car, in an area with no jobs, these strategies led to criminal behavior (trading weed) and jeopardized her personal safety (riding with strangers). At the time of the interview, she lived in a very rural area but, having grown up in Detroit, she had "street smarts" when it came to arranging employment and getting from place to place. Living in Michigan, she drove with a New York license and Florida plates as a means of subterfuge, but this strategy only worked for a while. As a result, she had trouble getting to her numerous part-time cleaning jobs. To get to these jobs, she would post help wanted ads on Craigslist, which she admitted was risky and unsafe. Yet she preferred that method to what she called the "tit for tat" system of relying on friends for rides who then required money for gas, money for car repairs or maintenance, cigarettes, or weed in return. Recently, she offered a man in her neighborhood his

usual “payment” of weed in exchange for a ride to work but he turned it down, stating that he preferred cocaine. Gracie missed her “cleaning gig” as a result. Despite her fearlessness in enlisting strangers to commute to work, she admitted fear of walking in her own rural neighborhood:

So and I know there’s a lot of drug addicts around here okay. So I feel like a walking target at night . . . Is it safe to walk around at night? You know what I’m saying? If I see people out at night, which I never have seen anybody walking at night, I’ve never seen anybody sitting in on the porch at night.

Twelve women in the sample (see Table 1) reported the community-level concern of neighborhood safety. This finding is consistent with prior research that justice-involved women live in neighborhoods with very low safety ratings (Cobbina et al., 2014; Petersilia, 2003; Richie, 2001). In support of the third thematic disadvantage, community-level need, other women reiterated that their lack of access to transportation was worsened by residence in an unsafe neighborhood but helped by support from family and friends. In response to a question about whether her current arrangements for getting around place her in danger or difficult situations, Brooke responded,

Only if I’m out at night. Because my husband doesn’t want me walking at night. He knows everything’s convenient but there’s a tower over here that’s full of drug runners, killers, and thieves, and you hear gun shots and whatever.

In response to the same question, Mallory also tied the neighborhood safety concerns:

I mean, everything I do, especially me being a female, I try to do it during the day. I don’t like to be out at night. Even when I’m going to east side to see my boyfriend, he will get mad sometimes because I will leave so early . . . He’ll be like, what are you doing, are you messing with somebody? I’ll be like, no, I just don’t want to be out when it’s dark . . . I don’t want to be outside at night by myself. I said anything can happen. He said just like anything can happen to you during the day. I said, well at least during the day I have a better chance of running, getting to a neighbor, knocking on the door or something. At night, especially over here, there’s nothing over here. I can’t knock on nobody’s door. When I told him that he understood to whereas that now he sees, like, that I be leaving as I do and when it’s still daylight.

Like Gracie, Brooke and Mallory expressed concerns about traveling through their neighborhoods at night. Because neither woman can drive, they instead restrict their travel to daylight hours when it is safer.

Hailey White (39, urban) walks everywhere, despite transportation disadvantage and residence in an unsafe neighborhood, because poverty concerns necessitate walking through rough neighborhoods to get to food kitchens. Hailey could not recall a time in the past 5 years when family was able to help her. Fortunately, her friends were able to provide a safety net by going with her:

Yeah, just walking [puts me in danger or a difficult situation] depends on where I got to go, what neighborhood I’m walking to. You know, like they give out—like we have free—like free food—like the community serves—and I walk down . . . Sometimes we walk down there, a group of us walk down there from the neighborhood. . . . Just different, like neighborhoods you got to walk to, to get the free food the community serves or whatever, community food. Yeah.

Hailey's story exemplifies the potential complexity of transportation disadvantage among justice-involved women. She experienced extensive individual-level problems. Although she does not have health problems, she lacks access to a car. Her transportation problems are somewhat alleviated by her reliance on her personal support network to walk with her through unsafe neighborhoods. However, residence in these unsafe and inaccessible areas (a community-level need) means Hailey "can't get a job because jobs are so far out." This finding is consistent with research that shows cars are central to gaining employment (Blumenberg, 2004; Lichtenwalter et al., 2006; Sandoval et al., 2011). Although she appeared embarrassed to admit it, Hailey reveals she uses drugs to cope with the individual-level stresses of poverty and unemployment. From the researcher's standpoint, Hailey's transportation concerns are enmeshed in poverty, unemployment, drug use, and unsafe neighborhoods. Yet, Hailey reports that overall, she strongly agrees she has access to dependable transportation. Consistent with the fourth theme, this highlights the complexity of identifying, addressing, and remedying transportation disadvantages among justice-involved women whose definitions of transportation issues diverges from researchers.

INTENSITY OF TRANSPORTATION PROBLEMS

Once the extent and nature of transportation problems was documented, it became important to explore the level of intensity of these problems. Each transportation problem was evaluated and categorized as minor (i.e., woman gets where she needs to be but experiences minor annoyance or inconvenience, usually shorter term), moderate (i.e., woman gets where she needs to be but may be quite late, getting there requires high levels of effort and inconvenience), or severe (i.e., woman does not get where she needs to go or must violate the law to get there, often longer term; transportation is a barrier).

In the follow-up interview, 49% of women reported at least one minor transportation problem, 39% of women reported at least one moderate transportation problem, and 29% of women reported at least one severe transportation problem. These data indicate that despite women's initial reluctance to talk about "problems," half of all women sampled experienced at least one minor transportation problem such as having to rely on others who are sometimes unreliable (49%). Further, significant numbers (29%) of women recount transportation barriers severe enough that they are either unable to get where they need to go or they violate the law to get there. Over 25% of women drove without a license; one woman in the study drove without a license daily. She needed to drive as part of her daycare business. Though it enabled her to sustain employment and maintain income, driving without a license placed her at risk for violating of parole, receiving a citation from the police, or even being reincarcerated.

COMPARATIVE IMPORTANCE OF TRANSPORTATION PROBLEMS

To assess the comparative importance of transportation while also taking into account women's perceptions of their problems, women were asked to report their top three concerns. Out of 75 women, 32 (42.6%) reported transportation as one of their top three concerns; in fact, it was the most common area of concern given. This result should be interpreted with some degree of caution due to priming effects, even though interviewers tried to address this issue, because women had just been asked about transportation concerns earlier in the interview. From the most commonly reported concerns to the least commonly reported, women's other areas of concern were finances in general (40%), others'

health and well-being (32%), personal health and safety including addiction (29.3%), housing (25.3%), employment (25.3%), going back to jail or prison or not meeting terms of probation/parole (24%), education (18.7%), repairing or maintaining personal relationships (16%), and personal improvement (13.3%).

DISCUSSION

The findings of the quantitative analysis in a statewide sample of 366 women extend that research by establishing that transportation is of crucial importance to justice-involved women, even when unidentified by the women themselves. Consistent with prior research, this study finds four main themes. First, at the individual level, women have very poor physical health (Maruschak & Berzofsky, 2015), lack the legal ability to drive (Carnegie, 2007; Cauchon, 2014; Morash, 2010), and have limited access to personal vehicles. Second, overall, women have relatively high levels of family and friend support (Cobbina, 2010; Dowden & Andrews, 1999; Leverentz, 2011; Slaght, 1999). Third, at the community level, women live in unsafe, inaccessible, and car-dependent areas (Cobbina et al., 2014; Richie, 2001).

Finally, an unexpected and puzzling finding emerged in the fourth theme: Despite women's high levels of transportation disadvantage at the individual and community levels, women overwhelmingly agreed they had access to dependable transportation. One complexity of capturing transportation problems is that women do not view their transportation problems, particularly legal transportation barriers, as significant. Women's minimizing views of their problems could lead practitioners and researchers to think that women do not need help with transportation services. Unaware that they have transportation problems, women most likely are not asking for, and aren't being connected with, transportation services. Documenting the level of transportation disadvantage present, and highlighting the reluctance to ask to help, this study takes the first step in establishing transportation disadvantage as a problem for justice-involved women.

Further, results of in-depth interviews with 75 women showed that women reported experiencing most often a constellation of problems; on average these clusters involved two to three transportation problems, with nearly one half of all women (42.6%) reporting transportation as one of their top three concerns. This finding suggests that a gender-responsive approach, one that holistically considers and addresses women's needs, is most appropriate for justice-involved women (Bloom et al., 2003; Covington & Bloom, 2006). Consistent with research, the interviews suggest that although women encounter a great variety of transportation problems, they do receive help from family and friends even if it's an extended network (Dowden & Andrews, 1999; Leverentz, 2011).

LIMITATIONS AND CONTRIBUTIONS

There are limitations to this study. It is not generalizable to a national population because of its focus on substance-involved female offenders in one state. For example, laws regarding driving and garnering of licenses, for example, as a penalty for committing a drug-related crime, vary from state to state. Michigan is not a very punitive state in terms of its driving laws. It can be expected that women residing in other states may experience a more challenging climate for driving. The basis for comparative research in other states has been laid by this study. Future studies should be conducted with justice-involved women broadly

(not just substance-involved females), among male offenders, and in different states to examine the effects of sanctions for licensing, resources available to women (bus vouchers), and weather conditions (important consideration for bus riders and walkers).

The present study improves existing research in several important ways. First, the longitudinal nature of the study, examining transportation access over time and situating it within the broader concerns in women's lives, establishes the extent to which transportation impacts the lives of justice-involved women. Second, the sample sizes and high retention of women in those samples from first to fourth interview provide confidence in the external validity of the study—confirming that the women who were retained represent the larger population from which they were sampled. Third, the diversity of the sample included women living in both rural and urban areas, which allowed for examination of a variety of levels of neighborhood crime, access to public transportation, and proximity to needed resources. Finally, the use of both quantitative and qualitative methodologies strengthened the study by allowing large numbers of women ($n = 366$) to be sampled to establish the broad scope of the transportation problem and made possible the flushing out of complex topics with in-depth interviews ($n = 75$).

POLICY IMPLICATIONS AND FUTURE RESEARCH

Overall, these findings suggest several major directions for policy. First, an increased awareness among practitioners and researchers of transportation as a problem—one that justice-involved women are reticent to discuss—may improve diagnosis and amelioration of women's transportation disadvantages. Supervision agents and agencies should be trained and aware of the significant problems their clients face but are unlikely to articulate—problems that complicate, and in some cases, inhibit their attending supervision appointments, receiving drug or alcohol treatment, and obtaining other necessary services.

Second, programs aimed at increasing women's access to affordable vehicles or dependable public transportation should be considered an important component of successful reentry and included in social services such as housing, employment, and food aid. This study, and others involving low-income samples, highlights the particular importance of access to an automobile (Lichtenwalter et al., 2006) and indicate many women are living in car-dependent areas. Although many reentry programs focus on providing education and job training to offenders, it may well be that car ownership is more important and thus needs to be addressed as well. Further, transit authorities can learn from the types of problems women are experiencing with their services to improve the quality of those services (e.g., safety and route coverage). Finally, one solution to consider would be less, not more programming for women, which would ease the demands for transportation, and thus taking a holistic, gender-responsive approach to programming in general.

Third, this research found that many women rely on family and friends for assistance getting from place to place. Other studies have found that for low-income women, reliance on family and friends is an important coping strategy (Edin & Lein, 1997). Efforts should be made to foster relationships between women and their families. Research has also shown that women who rely too heavily on family and friends can exhaust their resources (Offer, 2012) reducing their ability to meet other needs. Although this study is unable to reconcile which is more common, it does illustrate both are at play and that personal, as well as extended, support networks are highly valuable to women.

NOTE

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