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Permanent Housing Placement and Reentry to Services Among Family Recipients of Homelessness Prevention and Rapid Re-Housing Program (HPRP) Assistance

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Abstract

The Homelessness Prevention and Rapid Re-Housing Program (HPRP) provided individuals and families who were either at-risk or currently experiencing homelessness with time-limited financial and housing support services. Evaluations of HPRP showed a high rate of family placement into permanent housing. However, little research has explored immediate and longitudinal outcomes for families enrolled in HPRP. Using Homeless Management Information System data from Indianapolis, Indiana, we examined demographic and program-related predictors of families entering permanent housing and their risk of reentry into homeless services following HPRP participation. The sample included 511 families who enrolled in the program from 2009 to 2012, with an average follow-up period of 4.5 years. We conducted analyses separately for Homelessness Prevention (HP) recipients (n=357)and Rapid Re-Housing (RRH) recipients (n=154). Results revealed that HP families were more likely to enter permanent housing if they: included adults who were older in age, were enrolled longer in the program, were provided rental arrear services and utility payments, and did not receive legal services. RRH families receiving rental assistance services had significantly greater odds of entering permanent housing. Among permanently housed families, at least one family member in 10.9% of HP recipients and 18.8% of RRH recipients reentered homeless services. HP families with younger children and one veteran family member were at increased risk of reentry to homelessness services. RRH recipients who did not receive moving cost services and had more children were at greater risk of reentry. Study findings suggest a need for future research on HP and RRH interventions that identify unique service needs among families who are experiencing housing instability or homelessness.

Keywords Homelessness prevention · Rapid re-housing · Family homelessness · Permanent housing placement · Service reentry · Homelessness

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Introduction

An estimated 70,000 U.S. families experience homelessness on any given night, and millions of individuals and families are at risk of becoming homeless due to economic and household instability (National Alliance to End Homelessness, 2015). Homelessness is a temporary circumstance for most families, and access to affordable housing is a critical component for homelessness prevention and intervention (Shinn, 1997; Shinn, Baumohl, & Hopper, 2001). A review of early evidence for family homelessness prevention and housing interventions indicated that the allocation of housing subsidies can improve residential stability (Bassuk & Geller, 2006). However, permanent subsidies are both costly and limited in quantity and, therefore, unavailable for all families in need. Recent policies at local and federal levels have focused on temporary subsidies with time-limited support services as a cost-effective complement to other services such as permanent subsidies and supportive housing (Culhane, Metraux, & Byrne, 2010). However, temporary financial assistance may not address underlying causes of family homelessness, including a lack of affordable housing and income instability, and may leave some vulnerable to ongoing housing insecurity once assistance is exhausted. Research is needed to explore the residential trajectories of families following temporary financial assistance.

In terms of policy initiatives, the Homelessness Prevention and Rapid Re-Housing Program (HPRP) was a substantial federally funded 3-year (2009-2012) initiative to prevent the negative individual and social impact of long-term homelessness among single adults and families through time-limited financial and support services (U.S. Department of Housing and Urban Development, 2009). Individuals and families deemed capable of benefiting from time-limited services of modest intensity were eligible for HPRP; those experiencing homelessness received Rapid Re-Housing (RRH) assistance and those at imminent risk of homelessness (e.g., eviction due to insufficient income) received Homelessness Prevention (HP) assistance. Nationally, HPRP served over 500,000 households, and 89.9% of recipients exited the program into permanent housing (U.S. Department of Housing and Urban Development, 2016). To expand on the promising findings related to HPRP's purpose to stabilize families experiencing immediate housing crises, research is needed to identify family and program characteristics associated with placement in permanent housing through HPRP assistance. Further, exploration of predictors of homeless service reentry among individuals permanently housed could illuminate potential long-term impacts of temporary assistance programs. Initial research on single adults participating in HPRP has shown veterans and individuals whose income did not increase during the program were at greater risk of reentry, and RRH recipients reentered at a higher rate than HP recipients (Brown, Vaclavik, Watson, & Wilka, 2017).

The Supportive Services for Veteran Families (SSVF) program is a federal policy initiative offering prevention and re-housing assistance for the veteran subpopulation of individuals and families experiencing or at risk of homelessness. A recent national study found that 15.6% of veterans in families receiving

re-housing assistance and 10.9% of those receiving prevention services returned to a Veterans Affairs homeless program within 2 years after they exited SSVF (Byrne, Treglia, Culhane, Kuhn, & Kane, 2016). Families who exited SSVF on a permanent housing subsidy were at lower risk of returning to homeless services than those exiting to non-subsidized living arrangements.

RRH has been examined in experimental research through The Family Options (FOS) Study, which examined the comparative effectiveness of varying levels of housing support for homeless families, including permanent subsidies, RRH, transitional housing, and usual care (Gubits et al., 2016). Results comparing RRH to permanent subsidies and usual care suggest further concerns about long-term residential stability among families receiving temporary assistance versus permanent subsidies. Families receiving RRH demonstrated significantly greater shelter use after 18 months than did those receiving a permanent housing subsidy, and their residential outcomes were nearly equivalent to those of families receiving usual care services. However, it is important to note only about 60% of families assigned to RRH took up the intervention, and secondary analyses revealed more promising housing outcomes for RRH users than those who were assigned to, but who did not use, RRH (Gubits et al., 2016). The study examined level of psychosocial challenges and housing barriers experienced by families as moderators of intervention effects. Overall, findings comparing RRH to the usual care and permanent housing subsidy conditions were either inconclusive or inconsistent with hypothesized relationships. Additional research is needed to understand for whom interventions such as RRH are most effective.

Given the tension between theoretical and empirical arguments for permanent housing subsidies for ameliorating family homelessness, as well as the policy and economic arguments for lower-cost interventions, it is critical that we expand the limited body of literature on temporary homelessness assistance programs. Our study builds upon findings from the FOS study (Gubits et al., 2016) by including a homelessness prevention intervention, which emphasizes within-intervention effects, and by including a broader array of predictors of homelessness outcomes. Additionally, our study expands upon previous research, including the comprehensive study of SSVF that focused on veteran families (Byrne et al., 2016), and previous HPRP research with single adults (Brown et al., 2017), by exploring intervention effects for families participating in HPRP. Our study provides an initial investigation of immediate and longitudinal (i.e., up to 6 years) HPRP outcomes for families by using administrative data from Indianapolis, Indiana's Homeless Management Information System (HMIS). We examine predictors of permanent housing placement among HP and RRH recipients. Further, we examine the influence of short-term financial and support services on subsequent risk of homeless service utilization over time and explore predictors of reentry to services among a subsample of participants who exited into permanent housing.

Methods

Sample

The sample, derived from the Indianapolis HMIS, consisted of 1812 individuals (adults = 682 and children = 1130) in 511 families. Participants received HPRP assistance between its initiation in 2009 and termination in 2012. A total of 357 families received HP assistance and 154 received RRH assistance.

Program Description

Twenty Indianapolis-area agencies received HPRP funding. United Way of Central Indiana (UWCI) acted as the primary grantee and fiscal agent and led program administration and monitoring. UWCI and the Coalition for Homelessness Intervention and Prevention provided regular training regarding data entry, program reporting, and program eligibility recertification every 90 days (Officer & Sauer, 2011). Case managers met in person with clients to collect assessment information, verify eligibility, and obtain and input required HMIS data. HPRP offered a menu of housing and financial services that were administered based on family need. Housing services included assistance finding affordable housing, legal services, and housing stabilization services. Financial services included rental assistance, security deposits, utility deposits, moving costs, and rental or utility arrears.

Materials and Procedure

HMIS data included the following demographics: gender, age, race/ethnicity, veteran status, and monthly income. In terms of program variables, participants received either HP or RRH assistance. We measured length of program enrollment in number of days between program entry and program exit. The specific types of housing and financial services were dichotomously coded (1=received, 0=not received). Case management was not included among the program variables, as 95.5% of families received this service.

The first study outcome was housing status upon exit from HPRP. Housing status included two categories: permanent housing (i.e., housing categorized in the HMIS as: permanent supportive housing, client rental with subsidy, client rental without subsidy, client owned with subsidy, and client owned without subsidy) and non-permanent settings (e.g., street or shelter homelessness, institutional setting). The second outcome was reentry to homeless services after permanent housing placement by at least one family member. A significantly greater proportion of families who were not permanently housed experienced reentry to homeless services, which likely occurred as a result of their ongoing reliance on homeless services in the absence of housing. As such, we only included families exiting in permanent housing to address the influence of temporary services in preventing subsequent episodes of homeless service utilization once successfully housed. Reentry to homeless services

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after permanent housing was based on HMIS homeless service utilization data and defined as utilization of shelters, transitional housing, or safe havens. Follow-up months were computed for each family until one of two possible outcomes occurred between their program enrollment date and the study end date of September 2015: at least one member of the family reentered homeless services, or no additional follow-up data were available for the family. Follow-up periods varied due to participants' staggered HPRP enrollment, averaging 4.5 years (*Range* 3.3–5.9 years). We converted follow-up periods from days, as reported in the HMIS, to months, for ease of interpretation when discussing reentry multiple years after exiting the HPRP program.

Statistical Analysis

We conducted analyses for HP and RRH recipients separately. Logistic regressions were employed to examine demographic variables, program variables, and participants' circumstances exiting HPRP as predictors of permanent housing status at HPRP exit (permanent=1, non-permanent=0). We examined Hosmer–Lemeshow goodness of fit tests to ensure the models were a satisfactory fit for the data. Univariate logistic regression models were run initially due to the limited sample size of some predictor variables. Predictors approaching significance at the p < .10 level were selected and entered into multivariable models.

We examined the predictive models of reentry to homeless services among families permanently housed at HPRP exit. The follow-up period was computed in months, with the starting point (i.e., month 0) indicating the time they exited HPRP. Follow-up months were computed for each family until one of two possible outcomes occurred between their program enrollment date and the study end date of September 2015: at least one member of the family reentered homeless services, or no additional follow-up data were available for the family. Cumulative rates of housing reentry by year were computed using Kaplan–Meier survival estimates. We used Cox proportional hazards models to examine risk of reentry. The number of families reentering homeless services was insufficient for a multivariable model that would include all predictors of interest (Vittinghoff & McCulloch, 2007). Thus, risk of reentry was calculated using a series of univariate Cox proportional hazards models. Variables that emerged as significant or trending (p < .10) predictors entered into the final models for HP and RRH recipients.

Results

Sample Demographics

Table 1 displays the demographic and program participation information for families. Among the 511 families, the average family size was 3.6 members (SD = 1.4, range = 2-11). A total of 116 (22.7%) families had two members, 178 (34.8%) had three members, 113 (22.1%) had four members, the remaining 104 families (20.4%)

Table 1 Participant demographics			
	Total sample ($N=511$)	Homelessness prevention $(n = 357)$	Rapid re-housing $(n = 154)$
Enrollment demographic variables			
Race/ethnicity n (%)			
Black/African-American	357 (69.90)	241 (67.50)	116 (75.32)
White/European-American	103 (20.20)	79 (22.13)	24 (15.59)
Mixed family	46 (9.00)	34 (9.52)	21 (13.64)
Other	3 (0.98)	2 (0.56)	1 (0.65)
Average adult age M (SD)	32.83 (7.63)	32.70 (7.28)	33.12 (8.41)
Average child age M (SD)	8.01 (4.59)	8.16 (4.64)	7.66 (4.46)
Number of adults $M(SD)$	1.34(0.69)	1.38 (0.65)	1.26 (0.78)
Number of children M (SD)	2.24 (1.32)	2.22 (1.29)	2.29 (1.41)
Veteran n (%)	42 (8.20)	34 (9.50)	8 (5.20)
Disabling condition identified n (%)	68 (13.30)	41 (11.50)	27 (17.50)
Income at program enrollment $(\$) M (\$D)$	726.61 (676.35)	714.28 (682.56)	755.19 (663.03)
Program participation and type of assistance received			
Length of enrollment (days) $M(SD)$	249.63 (147.52)	249.18 (149.22)	250.66 (143.98)
Financial assistance type n (%)			
Rental payment	452 (88.50)	317 (88.80)	135 (87.70)
Security deposit	243 (47.60)	132 (37.0)	1111 (72.10)
Utility payment	304 (59.50)	220 (61.60)	84 (54.50)
Utility deposit	129 (25.20)	70 (19.60)	59 (38.30)
Rental arrears	223 (43.60)	196 (54.90)	27 (17.50)
Utility arrears	287 (56.20)	207 (58.00)	80 (51.90)
Moving costs	54 (10.60)	30 (8.40)	24 (15.60)

	Total sample ($N=511$)	Homelessness prevention $(n = 357)$	Rapid re-housing $(n = 154)$
Motel voucher	17 (3.30)	9 (2.50)	8 (5.20)
Support service assistance type n (%)			
Outreach and engagement	410 (80.20)	302 (84.60)	108 (70.10)
Housing search and placement	248 (48.50)	145 (40.60)	103 (66.90)
Credit repair	73 (14.30)	58 (16.20)	15 (9.70)
Legal	34 (6.70)	30 (8.40)	4 (2.60)
Circumstances at program exit			
Income at program exit $(\$) M (SD)$	873.32 (923.56)	863.56 (919.26)	895.94 (936.07)
Change in income at program exit n (%)			
Did not increase	331 (64.80)	224 (62.70)	107 (69.50)
Increased	180 (35.20)	133 (37.30)	47 (30.50)
Residential status n (%)			
Permanent	447 (87.50)	320 (89.60)	127 (82.50)
Homeless	37 (7.20)	19 (5.30)	18 (11.70)
Institutionalized	2 (0.40)	2 (0.60)	1
Unknown	16 (3.10)	9 (2.50)	7 (4.50)
Multiple types of residences	9 (1.80)	7 (2.00)	2 (1.30)
Reentry to homeless services ^{a,b}			
At least one family member reentered homeless services n (%)	59 (13.00)	35 (10.90)	24 (18.80)
Time to reentry among families with at least one member reentered (Months) M (SD)	19.24 (16.56)	21.80 (18.52)	16.05 (13.36)
^a Doministration and a supersonal 4 40 more and more and here here and he	and on the date of necessary wit we	vinc from October 2009 to Lune 201	17 through Soutombox 2015

2012 and september 2015 Participant reentry periods averaged 4.49 years and were calculated based on the date of program exit ranging from October 2009 to June ^bReentry descriptives calculated for the subset of families exiting in permanent housing

Table 1 (continued)

had 5–11 family members. Families, on average had 1.3 adults age 18 or older (SD=0.7, range=1-6) and 2.2 children (SD=1.3, range=1-9). Primary service recipients were family members who interacted most frequently with HPRP services and staff on behalf of the family. Of the primary service recipients, 425 (83.2%) were female adults, and 86 (16.8%) were male adults. A single adult headed the majority of families receiving services (72.7%, n=371). Ninety-three percent of these adults (n=343) were single women. The average age of child family members was 8.0 (SD=4.6), and the average age of adult family members was 32.8 (SD=7.6). The majority of households, 357 (69.9%), were African American, 103 (20.2%) were European American, 46 (9.0%) identified as being from a multiracial household, and 5 (1.0%) were from another ethnicity or did not identify it. Fortyfour (8.2%) families had a veteran member. A total of 449 (97.9%) families exited HPRP into permanent housing.

Permanent Housing at Program Exit: Homelessness Prevention

Table 2 reports the results of the univariate and multivariable logistic regression models of odds of exiting to permanent housing. For the HP sample, families who stayed in the program longer and had older adult family members had greater odds of exiting into permanent housing. Families receiving legal assistance had lower odds of exiting to permanent housing than non-permanent settings. In terms of financial assistance, families who received rental assistance, utility payments, utility arrears, or rental arrears were more likely to exit to permanent housing than those who did not. There were no significant differences in the likelihood of exiting to permanent housing for the remaining predictors.

The multivariable regression model was significant overall, χ^2 (8, N=357)=66.33, p < .001. Older average age of adults and program enrollment length remained significant predictors of permanent housing exit in the multivariable model. Receipt of utility payments and rental arrears were also positively associated with permanent housing placement. Receipt of legal assistance was inversely related to the likelihood of a permanent housing exit. With the multivariable model, increased income, rental assistance and receipt of utility arrears were no longer significant predictors.

Permanent Housing at Program Exit: Rapid Re-Housing

For the RRH sample, factors associated with greater odds of exiting to permanent housing than to non-permanent settings included: higher household income at program exit, increased income during the program, and program enrollment length. Receipt of housing search and placement service rental assistance, utility payments, utility arrears, and a security deposit were associated with permanent housing exits. No significant differences in likelihood of exiting to permanent housing emerged for the remaining predictors.

The multivariable regression model was significant overall, χ^2 (9, N=154)=49.10, p < .001. Receiving rental assistance remained a significant

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Table 2

	Homelessne	ss prevention			Rapid re-hou	Ising		
	OR	95% CI	AOR	95% CI	OR	95% CI	AOR	95% CI
Enrollment demographic variables								
Average adult age	1.06*	1.00, 1.12	1.12^{**}	1.05, 1.19	1.01	0.96, 1.06	I	I
Average child age	1.03	0.96, 1.11	I	I	1.00	0.91, 1.10	I	Ι
Number of adults	1.36	0.72, 2.55	I	I	1.08	0.58, 2.01	I	I
Number of children	1.00	0.76, 1.31	I	I	1.09	0.79, 1.51	I	I
Veteran	0.83	0.27, 2.50	I	I	0.31	0.07, 1.40	I	I
Disabling condition	1.04	0.35, 3.11	I	Ι	0.87	0.30, 2.56	I	Ι
Program participation and type of assis	stance receivea							
Length of enrollment	1.01^{***}	1.01, 1.01	1.01^{**}	1.00, 1.01	1.01^{***}	1.01, 1.01	1.01	1.00. 1.01
Rent payment	6.20^{***}	2.80, 13.51	0.91	0.29, 2.88	20.30^{**}	6.61, 62.60	8.43*	1.24, 57.50
Security deposit	0.71	0.35, 1.42	I	I	3.98**	1.66, 9.56	0.81	0.17, 3.81
Utility payment	4.92***	2.29, 10.57	3.40^{*}	1.08, 10.69	3.29**	1.33, 8.12	1.06	0.27, 4.23
Utility deposit	1.01	0.42, 2.42	I	I	1.86	0.73, 4.73	I	I
Rent arrears	4.19^{***}	1.91, 9.19	3.83*	1.54, 9.55	6.37	0.83, 49.24	4.29	0.49, 37.60
Utility arrears	2.37^{***}	1.17, 4.80	0.49	0.17, 1.44	2.89	1.17, 7.14	1.27	0.36, 4.42
Moving costs ^b	0.71	0.23, 2.15	I	I	I	I	I	I
Motel voucher ^a	Ι	Ι	I	Ι	0.59	0.11, 3.10	I	Ι
Outreach and engagement	0.47	0.14, 1.59	Ι	Ι	1.05	0.42, 2.63	I	Ι
Housing search and placement	1.08	0.54, 2.20	Ι	Ι	2.87**	1.21, 6.79	1.72	0.55, 5.36
Credit repair	1.62	0.56, 4.76	I	I	1.36	0.29, 6.41	I	I
Legal ^b	0.26^{**}	0.11, 0.63	0.13^{**}	0.04, 0.44	I	I	I	Ι
Income variables								
Income amount at program exit	1.00	1.00, 1.00	1	I	1.00^{**}	1.00, 1.00	1.00	1.00, 1.00

Table 2 (continued)								
	Homelessr	less prevention			Rapid re-h	ousing		
	OR	95% CI	AOR	95% CI	OR	95% CI	AOR	95% CI
Increased income at program exit	2.33	0.99, 5.05	1.40	0.53, 3.713	6.51*	1.47, 28.79	1.62	0.23, 11.27
OR odds ratio, CI confidence interval	l, AOR adjusted	odds ratio, HPRP h	omelessness p	revention and Rapid	Re-Housing P	rogram		
p < .05, p < .01, p < .01, p < .001								
^a Model did not converge for homeles	sness preventio	n						

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^bModel did not converge for rapid re-housing

predictor of exiting to permanent housing. All other variables were no longer significant.

Risk of Reentry to Homeless Services: Homelessness Prevention

Cumulative reentry estimates by year are reported for the HP and RRH samples in Table 3. Of the 321 HP families that exited the HPRP program permanently housed, 35 (10.9%) reentered services. Results of the univariate and multivariable Cox proportional hazards models of risk of reentry to homeless services are reported in Table 4. For the HP sample, having younger children, having a veteran family member, having received housing search and placement services, and having received a security deposit were associated with greater risk of reentry for families. No significant differences in the risk of reentry were observed for the remaining predictors.

The multivariable Cox proportional hazard model was significant overall, χ^2 (4, N=126)=20.58, p<0.001. Younger average age of children and veteran family member remained significant predictors of service reentry in the multivariable model. Receipt of a security deposit approached significance and receipt of housing search and placement was no longer a significant predictor in the presence of other variables.

Risk of Reentry: Rapid Re-housing

A significantly higher proportion of RRH families reentered than HP families, χ^2 (1, N=449)=4.94, p=0.03. Of the 128 RRH families that exited the HPRP program permanently housed, 24 (18.8%) reentered services. For the RRH sample, a greater number of children in the household was a significant predictive of risk of reentry. No significant differences in the risk of reentry were observed for the remaining predictors. The multivariable Cox proportional hazard model was significant overall, χ^2 (2, N=126)=15.02, p=0.001. Families with more children, and families that did not receive assistance with moving costs were significant predictors of risk of service reentry.

Discussion

Consistent with national HPRP outcomes (U.S. Department of Housing and Urban Development, 2016), the large majority of the families in our study sample exited to permanent housing. Thus, the combination of short-term financial and support services offered by the program met the immediate housing needs for atrisk families and families experiencing homelessness. Reentry to services over the 4.5-year follow-up period occurred among 10.9% of HP and 18.8% of RRH participants, a reentry rate similar to two-year outcomes among veteran families receiving SSVF (Byrne et al., 2016). Findings also align with FOS outcomes among RRH recipients, of whom 16.8% reported at least one night of home-lessness in the past six months at the 36-month follow-up (Gubits et al., 2016).

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	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
	Est. Prop.	Std. Error	Est. Prop.	Std. Error	Est. Prop.	Std. Error	Est. Prop.	Std. Error	Est. Prop.	Std. Error	Est. Prop.	Std. Error
Iomelessness prevention	.040	.011	.069	.014	.087	.016	.093	.016	.103	.017	.109	.017
tapid re-housing	.078	.024	.133	.030	.164	.033	.180	.034	.187	.034	.187	.034

Est. Prop. estimated proportion of families who reentered homeless services, Std. Error standard error

..... 4 eviting for familiae ĥ i vol Table 3 Cumulative Kaplan–Meier 1-

Table 4 Cox regression models of ri-	sk of reentry to l	homeless services	after exiting H	PRP into permane	nt housing			
	Homelessn	ess prevention			Rapid re-h	ousing		
	HR	95% CI	AHR	95% CI	HR	95% CI	AHR	95% CI
Enrollment demographic variables								
Average adult age	1.01	0.97, 1.06			0.96	0.91, 1.02		
Average child age	1.09*	1.18, 1.01	0.08*	0.85, 1.00	0.98	0.89, 1.08		
Number of adults	1.09	0.67, 1.77			0.73	0.31, 1.74		
Number of children	0.79	0.58, 1.09			1.34^{**}	1.10, 1.63	1.43^{***}	1.16, 1.77
Veteran ^a	3.08^{**}	1.39, 6.81	3.30^{**}	1.40, 7.78	I			
Disabling condition	1.00	0.35, 2.85			0.43	0.10, 1.82		
Program participation and type of as	ssistance receive	p.						
Length of enrollment	1.00	1.00, 1.00			1.00	1.00, 1.00		
Rent payment ^b	0.77	0.27, 2.20			I			
Security deposit	2.58**	1.31, 5.10	1.98	0.94, 4.14	1.10	0.41, 2.95		
Utility payment	1.19	0.57, 2.45			1.38	0.59, 3.23		
Utility deposit	1.60	0.75, 3.44			1.04	0.46, 2.34		
Rent arrears	0.80	0.41, 1.56			0.78	0.27, 2.27		
Utility arrears	0.98	0.50, 1.95			1.57	0.67, 3.67		
Moving costs	1.13	0.35, 3.70			0.17	0.02, 1.28	7.96*	1.05, 60.62
Motel voucher ^a	I				0.05	0.00, 151.68		
Outreach and engagement	1.39	0.49, 3.96			1.61	0.60, 4.31		
Housing search and placement	2.06*	1.04, 4.07	1.77	0.84, 3.74	1.60	0.60, 4.29		
Credit repair	0.89	0.34, 2.31			0.81	0.19, 3.46		
Legal	0.40	0.05, 2.89			1.70	0.23, 12.62		
Income variables								
Income amount at program exit	1.00	1.00, 1.00			1.00	1.00, 1.00		

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Table 4 (continued)								
	Homeless	ness prevention			Rapid re-h	iousing		
	HR	95% CI	AHR	95% CI	HR	95% CI	AHR	95% CI
Increased income at program exit	0.96	0.48, 1.92			1.39	0.62, 3.12		
HR hazard ratio, CI confidence interva	al, AHR adjust	ed hazard ratio, HH	PRP homelessn	ess prevention an	d Rapid Re-Ho	using Program		
p < .05, *p < .01, **p < .001								
^a Model did not converge for Homeles	sness Preventi	uo						

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^bModel did not converge for Rapid Re-Housing

Reentry was significantly higher in RRH families than HP families. Families experiencing homelessness when entering HPRP likely had additional risk factors for subsequent homelessness than did those who were tenuously housed. Further research and development of RRH is particularly needed.

It is important to note that our study's findings do not offer evidence for the effectiveness of the HPRP program due to the absence of an experimental or quasi-experimental design that uses comparison groups. Moreover, the use of service reentry as a proxy for housing stability omits the possibility that some families who did not reenter services may have become unstably housed in other ways, such as moving into doubled-up situations or entering homeless services outside the Indianapolis Continuum of Care. Furthermore, although HMIS provides longitudinal information about program participants, there may be issues with the reliability of administrative data as well as the scope of the information available. The measures of service use types may have been influenced by selection effects. For instance, families without legal barriers to housing may have been less prone to need and utilize legal assistance in HPRP. It is also possible other factors such as negative childhood experiences among adult household members, multiple residential transitions, mental health, substance abuse, and level of conflict within the family may have also predicted outcomes among HP and RRH families in this sample (Bassuk et al., 1997; Shinn, Greer, Bainbridge, Kwon, & Zuiderveen, 2013). Finally, while HPRP was a national program, our study was limited to one city, and findings may not be generalizable to the full national population of HPRP families. Prospective, multisite, controlled studies building on re-housing findings from the FOS (Gubits et al., 2016), and those evaluating the effectiveness of homelessness prevention interventions, are needed to inform policy and practice.

Despite these limitations, our study captured a diverse sample of families, all of whom had some level of engagement with HPRP intervention and offers preliminary findings related to potential predictors of immediate and longitudinal outcomes associated with temporary assistance programs. Consistent with previous studies, family demographics emerged as important predictors of immediate and long-term outcomes and aligned with previous research (Bassuk et al., 1997; Shinn et al., 2013; Wong, Culhane, & Kuhn, 1997). HP families with younger adults were more likely to lose their housing and exit HPRP to a non-permanent setting. Children played a significant role in service reentry for both groups; younger children negatively affected the residential stability of HP families and having a greater number of children negatively impacted RRH families. Desmond (2012) documented the role young children can play in housing loss, as they may: increase living expenses, prevent single parents from engaging in full-time work, and lead to increased scrutiny by landlords. It is possible any one or all of these issues affected families with children in our sample. Further, for HP families, having a veteran member also predicted reentry to homeless services. The SSVF program was initiated in 2011, and veterans may have reentered services to access these new resources. It is also possible that veterans may require more resources to manage their transition to civilian life and health needs, which have been demonstrated to influence housing (O'Connell, Kasprow, & Rosenheck, 2008; Washington et al., 2010). Thus, additional support

services may be indicated for precariously housed young families, families with more children, and families with veteran members to promote housing stability.

Regarding program engagement and support services, several predictors were associated with permanent housing upon program exit. Longer program enrollment was positively associated with exiting to permanent housing for HP families. This finding indicates that a greater use of program resources may improve stability for HP families and provides further confirmation for the role of supportive services in promoting housing outcomes among families (Bassuk & Geller, 2006). The use of housing search and placement services was positively associated with RRH families entering permanent housing but, perhaps paradoxically, was also associated with the risk of homeless service reentry among HP families. In both cases, the effect of housing search and placement on housing outcomes was no longer significant when controlling for other predictors. However, the observed associations may be useful in guiding service delivery; for example, RRH families may benefit from specialized services to facilitate housing placement. Based on trends in reentry predictors among HP families in this sample, those who likely moved from their current home, as indicated by receipt of housing search and placement services and a security deposit payment, were more likely to reenter services over time. Thus, HP families who need to resettle may require additional support to remain stably housed, particularly in light of research showing that frequent residential transitions increase risk of family homelessness (Shinn et al., 2013). Further research is needed to identify the optimal length of service delivery and specific intervention strategies that promote the effectiveness of prevention and re-housing services.

Temporary financial assistance was a core component of HPRP (U.S. Department of Housing and Urban Development, 2016). Rental assistance, utility payments, and rental arrears were positively associated with exiting to permanent housing for one or both groups. These temporary financial services may have allowed participants the reprieve needed to gain greater socioeconomic stability, reduce debt or prevent a temporary financial setback from jeopardizing housing. While not measured in our study, program participants may have benefited from the relief from the immediate threat of homelessness, allowing them the opportunity to focus on proactive action instead of crisis management. In terms of service reentry, only the provision of moving cost assistance for RRH families significantly increased risk, and further research is needed to explore the mechanisms driving this relationship.

Only eight families in this sample were housed with a permanent subsidy, so we could not explore the relationship between subsidy and post-housing homeless service utilization found in previous studies (Byrne et al., 2016; Gubits et al., 2016). In the absence of permanent housing subsidies and due to the temporary nature of HPRP's financial assistance, it was important for families to be financially independent upon discharge to support residential stability. Increased income during program enrollment emerged as marginally significant predictor of immediate housing outcomes for RRH recipients in promoting placement in permanent housing. Contrary to the hypothesized prediction and previous research showing that poor families who were housed had higher incomes than homeless families (Bassuk et al., 1997), income level or improved income was not associated with lower risk of reentry for either group. Although we did not measure income source, previous research

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suggests reliance on public assistance may increase risk of homelessness for families (Shinn et al., 2013; Wong et al., 1997), which suggests that public assistance is not commensurate with the cost of living for poor families. Thus, supported employment services may be indicated to increase income and improve housing placement among homeless and vulnerably housed families participating in re-housing and homelessness prevention services.

Finally, HP families that did not receive legal assistance were more likely to exit to permanent housing. Legal assistance offered through HPRP was limited to services necessary to keep tenants in their housing, such as resolution of land-lord/tenant issues (U.S. Department of Housing and Urban Development, 2009). Thus, families in need of legal services may have been more vulnerably housed than those not in need, leading to poorer immediate housing outcomes. This finding may have implications for service delivery, as families involved in legal matters related to their housing may benefit from extended services until their legal issues are resolved. Additionally, housing search and placement services may be necessary to identify landlords willing to take families with eviction histories or other housing-related legal issues. Nevertheless, legal assistance may be an important component of homelessness prevention services, as a previous review of prevention interventions reported that mediation in housing courts in one community prevented eviction among 65% of families (Burt, Pearson, & Montgomery, 2007).

Conclusion

In conclusion, findings suggest that prevention and re-housing programs may provide beneficial resources and services for families at risk of homelessness or who are experiencing homelessness. Several family and service type variables emerged as predictors of immediate housing placement and service reentry outcomes that should be considered when tailoring program services to family needs. Further, our study sheds light on the many areas of study of temporary assistance programs for families that bear further exploration. To more fully understand the predictors of positive housing outcomes over time within such programs, future controlled studies with a more comprehensive set of measures are needed to provide an evidence base for homelessness prevention and rapid re-housing interventions.

Compliance With Ethical Standards

Conflict of Interest The authors declare they have no conflicts of interest.

References

Bassuk, E. L., Buckner, J. C., Weinreb, L. F., Browne, A., Bassuk, S. S., Dawson, R., et al. (1997). Homelessness in female-headed families: Childhood and adult risk and protective factors. *American Jour*nal of Public Health, 87, 241–248. https://doi.org/10.2105/AJPH.87.2.241.

Bassuk, E. L., & Geller, S. (2006). The role of housing and services in ending family homelessness. *Housing Policy Debate*, 17, 781–806. https://doi.org/10.1080/10511482.2006.9521590.

- Brown, M., Vaclavik, D., Watson, D. P., & Wilka, E. (2017). Predictors of homeless services reentry within a sample of adults receiving Homelessness Prevention and Rapid Re-Housing Program (HPRP) assistance. *Psychological Services*, 14, 129–140. https://doi.org/10.1037/ser0000112.
- Burt, M. R., Pearson, C., & Montgomery, A. E. (2007). Community-wide strategies for preventing homelessness: Recent evidence. *The Journal of Primary Prevention*, 28, 213–228. https://doi. org/10.1007/s10935-007-0094-8.
- Byrne, T., Treglia, D., Culhane, D. P., Kuhn, J., & Kane, V. (2016). Predictors of homelessness among families and single adults after exit from homelessness prevention and Rapid Re-Housing Programs: Evidence from the Department of Veterans Affairs Supportive Services for Veteran Families program. *Housing Policy Debate*, 26, 251–274. https://doi.org/10.1080/10511482.2015.1060249.
- Culhane, D. P., Metraux, S., & Byrne, T. (2010). A prevention-centered approach to homelessness assistance: A paradigm shift? *Housing Policy Debate*, *21*, 295–315. https://doi.org/10.1080/10511 482.2010.536246.
- Desmond, M. (2012). Eviction and the reproduction of urban poverty. American Journal of Sociology, 118(1), 88–133. https://doi.org/10.1086/666082.
- Gubits, D., Shinn, M., Wood, M., Bell, S., Dastrup, S., Solari, C. D.,...Abt Associates, Inc. (2016). Family options study: 3-year impacts of housing and services interventions for homeless families. Washington, DC: U.S. Department of Housing and Urban Development. Retrieved November 2, 2018. from https://www.huduser.gov/portal/sites/default/files/pdf/Family-Options-Study-Full-Report.pdf
- National Alliance to End Homelessness. (2015). The state of homelessness in America 2015. Retrieved November 2, 2018. from https://endhomelessness.org/just-released-the-state-of-homelessness-inamerica-2015/
- O'Connell, M. J., Kasprow, W., & Rosenheck, R. A. (2008). Rates and risk factors for homelessness after successful housing in a sample of formerly homeless veterans. *Psychiatric Services*, 59(3), 268–275.
- Officer, S., & Sauer, B. (2011). Homelessness prevention and Rapid Re-Housing Program (HPRP) evaluation report. Retrieved May 26, 2017, from http://www.chipindy.org/wp-content/uploads/2013/07/ HPRP_Evaluation_Report.Dec_2011.pdf
- Shinn, M. (1997). Family homelessness: State or trait? American Journal of Community Psychology, 25, 755–769. https://doi.org/10.1023/A:1022209028188.
- Shinn, M., Baumohl, J., & Hopper, K. (2001). The prevention of homelessness revisited. Analyses of Social Issues and Public Policy, 1, 95–127. https://doi.org/10.1111/1530-2415.00006.
- Shinn, M., Greer, A. L., Bainbridge, J., Kwon, J., & Zuiderveen, S. (2013). Efficient targeting of homelessness prevention services for families. *American Journal of Public Health*, 103(S2), S324–S330. https://doi.org/10.2105/AJPH.2013.301468.
- U.S. Department of Housing and Urban Development. (2009). Notice of allocations, application procedures, and requirements for Homelessness Prevention and Rapid Re-Housing Program grantees under the American Recovery and Reinvestment Act of 2009. Retrieved November 2, 2018, from http://www.hudexchange.info/resources/documents/HPRP_Notice_3-19-09.pdf
- U.S. Department of Housing and Urban Development. (2016). *Homelessness Prevention and Rapid Re-Housing Program (HPRP): Year 3 and final program summary*. Retrieved November 2, 2018, from https://www.hudexchange.info/resources/documents/HPRP-Year-3-Summary.pdf
- Vittinghoff, E., & McCulloch, C. E. (2007). Relaxing the rule of ten events per variable in logistic and Cox regression. American Journal of Epidemiology, 165, 710–718. https://doi.org/10.1093/aje/ kwk052.
- Washington, D. L., Yano, E. M., McGuire, J., Hines, V., Lee, M., & Gelberg, L. (2010). Risk factors for homelessness among women veterans. *Journal of Health Care for the Poor and Underserved*, 21(1), 82–91. https://doi.org/10.1353/hpu.0.0237.
- Wong, Y. L. I., Culhane, D. P., & Kuhn, R. (1997). Predictors of exit and reentry among family shelter users in New York City. *Social Service Review*, 71, 441–462. https://doi.org/10.1086/604265.

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