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How different are their experiences and outcomes? Comparing aged out and other child welfare involved youth

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Abstract

This paper adds to the growing body of research examining the experiences of youth aging out of the child welfare system. Through a comparison of youth aging out with two other groups of child welfare-involved youth—those whose families received child welfare services but were never placed out of home and those who were in out-of-home placement but did not age out—it presents a profile of their care careers and other system involvement (e.g., mental health, justice system). Analyses indicate that young people aging out of care have experienced significant amounts of time in out-of-home placement, a great deal of placement instability, and high levels of other system involvement. In general, their involvement is more extensive than that of the two comparison groups. However, the justice system involvement of youth who experienced out-of-home placement but did not age out is just as high as that of youth who have aged out. This finding highlights the importance of devoting resources not only to youth aging out of care but also to similarly-aged young people with prior child welfare involvement.

Keywords

Child welfare; Aging out; Justice system; Mental health; Substance abuse

1. Introduction

Between 25,000 and 30,000 youth age out of the U.S. child welfare system each year without achieving reunification with their original families or another permanent placement outcome (U.S. Department of Health and Human Services, 2009). Research indicates that youth aging out of the child welfare system fare poorly across a range of outcomes, such as educational attainment, employment, homelessness, public assistance receipt, criminal justice involvement, and material hardships (Courtney, Dworsky, Lee, & Raap, 2010; Pecora, Kessler et al., 2006). Over the last decade, there have been a number of rigorous studies that have increased understandings of the experiences and outcomes of aged out youth and many have followed these young people over time (see e.g., Courtney & Dworsky, 2006; Harris, Jackson, O'Brien, & Pecora, 2009; Pecora, Kessler et al., 2006; Pecora, Williams et al., 2006). Some of these studies have sought to compare aged out youth to other

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groups of young people, most often youth in the general population, in order to provide further context regarding their struggles (Cook, 1994; Courtney & Dworsky, 2006; Courtney et al., 2010; Pecora, Kessler et al., 2006; Pecora et al., 2005). As Courtney and Heuring (2005) suggest, however, the experiences of youth as they age out of child welfare are likely to be influenced by their past experiences of abuse and neglect, along with their histories in the child welfare system. Thus, while comparisons to youth in the general population are important in revealing the challenges faced by youth aging out, there is also a need for studies that compare aged out youth to other groups of youth who face similar experiences. These types of studies can provide more context regarding youth who aged out of the child welfare system as well as highlight the struggles of other groups of youth.

This study seeks to address this gap by analyzing administrative data from the population of youth born between 1985 and 1990 who have aged out of child welfare in Allegheny County, Pennsylvania and by utilizing comparison groups whose members likely have experiences similar to those of youth aging out. Namely, members of the two comparison groups in this study have also experienced involvement in the child welfare system in Allegheny County. Although they experienced a different resolution in terms of placement decisions within the child welfare system (i.e., no placement at all; placement that was resolved in a way that avoided the aging out outcome), the members of each group experienced events that gave rise to child welfare system involvement in their lives. As a result, this study's approach provides an enhanced, if still imperfect, degree of similarity of life experiences across groups. Thus, this study constitutes an initial step in extending the literature in this area through more precise identification of which youth are struggling and how. In this paper, we provide detailed descriptions of three groups of child welfare involved youth—those who have aged out of care, those with out-of-home placement at some point who did not age out, and those whose families had child welfare involvement but were never placed out-of-home. We compare the three groups on demographic factors, child welfare system experiences, and involvement in other systems. Because we find similar risks of justice system involvement for some groups, we include multivariate analyses to examine how aspects of care careers and aged out status relate to justice system involvement.

2. Background

2.1. Experiences of youth who have aged out of child welfare

As numerous studies have shown, youth aging out of child welfare experience considerable hardships and face multiple, interrelated challenges as they transition out of the system and into adulthood (Courtney & Dworsky, 2006; Pecora, Kessler et al., 2006). For example, they often have trouble securing stable housing, are forced to move often, and frequently experience homelessness for short or more extended periods of time (Courtney et al., 2010; Daining & DePanfilis, 2007; Pecora, Kessler et al., 2006; Reilly, 2003). Youth who have aged out of care, compared to their peers in the general population, have lower rates of employment, earn lower wages, and more often receive public assistance (Courtney & Dworsky, 2006; Courtney et al., 2010). Difficulty in obtaining and maintaining homes and jobs often results, at least in part, from the fact that, when compared with young people in the general population, they have lower high school graduation rates and lower levels of

enrollment in and completion of higher education (Courtney et al., 2010; Pecora, Kessler et al., 2006; Reilly, 2003).

These struggles are also related to the mental health and substance abuse problems experienced by many aged out youth. For example, among a sample of young people aged 20–33 who had been in out-of-home placement for at least a year, lifetime prevalence of major depression was 41% (compared with 20% among young people who had not had child welfare involvement), of post-traumatic stress disorder (PTSD) 30% (vs. 7%), drug dependence 21% (vs. 4%), and alcohol dependence 11% (vs. 7%; Pecora et al., 2005). Similarly, one-third of youth in the Midwest Evaluation of the Adult Functioning of Former Foster Youth, at age 19, were found to have experienced one or more of the following: depression, dysthymia, PTSD, social phobia, alcohol dependence, or substance abuse or dependence (Courtney & Dworsky, 2006). More striking, perhaps, is that 61% of youth in a study of 17 year olds in foster care in Missouri reported at least one psychiatric disorder in their lifetime, while 37% met criteria for a psychiatric disorder in the prior year, and 35% met criteria for a current substance use disorder (McMillen et al., 2005; Vaughn et al., 2007).

It is thus not surprising that youth who age out of child welfare have high rates of justice system involvement, as research outside child welfare has demonstrated strong connections between mental health and substance abuse problems and justice system involvement (e.g., Davis, Banks, Fisher, & Grudzinskas, 2004; Pullmann, 2010; Rosenblatt, Rosenblatt, & Biggs, 2000). Further, the struggles of youth aging out of care to obtain employment, particularly employment that pays a living wage, suggest that many may be forced to resort to illegal means to survive. Recent data from the Midwest Study, indicates that, at ages 23 and 24, 57% of young women who aged out of care and 81% of young men who aged out of care have ever been arrested, compared with just 4% and 17% of young women and men in the general population (Courtney et al., 2010). Similarly, these young people are also likely to have been convicted of a crime—28% of young women and 59% of young men in the Midwest Study, compared with 2% and 10% of young women and men in the community sample (Courtney et al., 2010). Further, many have been incarcerated—17% of young women and 40% of young men in the Midwest Study report, at ages 23 and 24, having been incarcerated in the prior year (Courtney et al., 2010). Clearly, justice system involvement among youth aging out of care is common, which presents a substantial obstacle to many young people in their transitions out of care and into adulthood.

The struggles of youth who have aged out of care relate to their experiences, or “care careers,” in the child welfare system. For example, research has found that placement instability has adverse effects on youths’ lives (Aldgate, 1994). Specifically, studies have revealed that youth with more foster care placements tend to leave care earlier, have significantly more school behavior problems, more extensive justice system involvement, higher rates of pregnancy and substance abuse, and are more likely to experience homelessness after leaving care (Aarons et al., 2008; Jonson-Reid & Barth, 2000; McCoy, McMillen, & Spitznagel, 2008; Reilly, 2003; Ryan & Testa, 2005; Zima et al., 2000). Another study found that youth who experienced multiple re-entries into foster care were at higher risk for incarceration (Courtney & Barth, 1996). Placement instability and a lack of broad independent living services are correlated with negative education outcomes (Pecora,

Kessler et al., 2006; Pecora, Williams et al., 2006), and youth who have negative foster care experiences, including a greater number of placements, are likely to have lower wages and income levels (Harris et al., 2009; Hook & Courtney, 2010). Type of placement is also important, as several studies have found that youth in foster care homes and kinship care placements generally fare better than youth in congregate care facilities (Barth, 2002; Hook & Courtney, 2010; Ryan, Marshall, Herz, & Hernandez, 2008).

As evident in this brief review, research on the experiences and outcomes of youth who age out of the child welfare system has increased over the last decade or so and has done an excellent job documenting the struggles of these young people. These studies have utilized a variety of research designs and types of data, and, have increasingly used comparison groups to provide greater context to these findings. This article seeks to contribute to this knowledge base by comparing the care careers and other system involvement of young people who aged out of the child welfare system to other young people whose families were involved in the child welfare system when they were adolescents. Child welfare involved youth face many of the same challenges as youth who aged out of the child welfare system and represent an opportunity to provide further context regarding the experiences of who aged out of the child welfare system.

3. Methods

3.1. Data

The population for this study includes all children born between 1985 and 1994 whose families received in-home services from the child welfare system and/or who were placed in out-of-home care for any length of time in Allegheny County, Pennsylvania. A major advantage of the birth cohort is that it enables us to follow all individuals who have entered and exited the child welfare system over the life course and to examine how youth who have aged out of the child welfare system differ from other groups of child welfare involved youth. The overall birth cohort includes 42,735 children from 23,754 families. Of this group, 9703 children were in an out-of-home placement for some period of time. Aged out youth in our sample are defined as those who spent at least one year in out-of-home placement and left care after turning 17. Overall, we identified 1361 youth who aged out of care between January 2002 and March 2008.

The data were obtained from the Data Warehouse of the Allegheny County Department of Human Services (DHS). The Data Warehouse is a unique data source because it integrates data across a number of systems in the county, including child welfare, mental health, drug and alcohol, hunger and housing, employment and training, juvenile justice, and the county jail. This integrated dataset allows us to examine both child welfare experiences and involvement in these other systems among the youth who aged out. Specific child welfare information in the data includes numbers, dates, and types of placements, whether the youth ran from care, and sibling information. Consequently, we are able to construct variables that represent aspects of youths' care careers. In terms of other system involvement, the Data Warehouse provides varying levels of detail. While for some systems we could only determine whether or not a youth was involved, DHS was able to provide us with additional data on the types of mental health and drug and alcohol services received (e.g., outpatient or

inpatient). One reality of using this type of data is that there are often cases that cannot be matched across systems. DHS has taken steps to reduce the number of cases that cannot be matched but this remains a limitation to the approach taken in this study.

3.2. Measures and analysis plan

As discussed previously, the goal of this article is to provide a profile of the care careers and other system involvement of young people who aged out of the child welfare system. We present this profile through a comparison of our Aged Out group with two other groups of child welfare involved youth—individuals whose families were involved in the child welfare system but were never placed out-of-home (No Placement; $n = 16,519$) and individuals who were in out-of-home placement but did not age out (Placement; $n = 2914$). There are two components to our analyses. The first involves a comparison of the three groups—No Placement, Placement, and Aged Out—on demographic characteristics, child welfare experiences, and involvement in other systems. We restrict these comparisons to youth who were at least 18 at the time that we received the data and whose families had some child welfare system involvement when they were 13 years old and above. By definition, the youth in the Aged Out group were involved with the system as adolescents. To make the groups more comparable in experiences, we restrict our comparison groups to youth with child welfare involvement as adolescents, as this is an indicator of some type of family difficulty at this important time in young people's development. Thus, we are excluding youth whose families were involved only when they were very young.

We performed chi-square and analysis of variance techniques to examine differences among these groups. To examine differences in demographic characteristics, we compare all three groups on *race*, *gender*, *age*, and *age at first family involvement with the child welfare system*. We then examine differences in the care careers of the Placement and Aged Out groups (the No Placement group is omitted because they were never in out-of-home placement). Aspects of care careers examined include *age at first out-of-home placement*, *number of out-of-home placements*, and total *length of time in out-of-home placement*. In terms of types of out-of-home placement, we constructed variables to indicate whether each youth had *ever been in foster care* and *ever been in a congregate care setting*, as well as variables representing *percentage of total time out-of-home spent in foster care* and *percentage of total time out-of-home spent in congregate care* and *foster care only placement type* and *congregate care only placement type*. Finally, we constructed a variable to indicate whether each youth had ever *run away from placement*.

We also compared these three groups based on their involvement in six other systems—*mental health*, *drug and alcohol*, *hunger and housing*, *employment and training*, *juvenile justice*, and *criminal justice*.¹ Involvement in these systems indicates a diverse range of needs, challenges, and consequences for youth. For example, involvement in the mental health system can be construed as positive in the sense that the services being offered might be helping a youth deal with a problem or an underlying issue. At the same time, the

¹Our measure of criminal justice involvement is based on whether youth have spent time in the county jail. Unfortunately, we do not have data on prison involvement. It is likely, though, that youth remaining in the county who go to prison would enter prison following detention in the county jail and thus would be included in this measure of criminal justice involvement.

existence of that problem or issue might present a challenge to a youth as he or she transitions out of the system and into adulthood, requiring continued contact with the system. Similarly, involvement in the drug and alcohol, hunger and housing, and employment and training systems suggests that while youth are receiving potentially helpful services, the reasons that they are receiving these services may present significant challenges to these young people. The consequences of involvement in the justice systems, especially the criminal justice system, are clearly negative, as justice system involvement poses substantial challenges to young people as they transition to adulthood.

Involvement in one of these systems is measured by whether a youth was ever involved, regardless of the extent of involvement. Because we have data on the types of mental health and drug and alcohol service received by each individual, we also include an examination of these other types of services received. The specific mental health services include outpatient therapy, partial hospitalization, crisis intervention, family therapy, medicine management, inpatient services, and intensive case management administration. The drug and alcohol service types include outpatient services, individual psychotherapy, family therapy, inpatient services, and drug and alcohol assessment. Although we have cost and unit information for each type of service, we dichotomize each service type as received/did not receive because of the extreme skew in the distributions of the cost and unit data.

The second component of our analyses involves multivariate techniques. As presented subsequently, bivariate comparisons tended to reveal sharp differences between the three groups of youth, with the Aged Out group generally faring worse than the Placement group, both of which fared worse than the No Placement group. However, differences in justice system involvement were not as striking; in fact, rates of justice system involvement among the Aged Out and Placement groups were not significantly different. Given these bivariate findings, we decided to perform binary logistic regression models examining predictors of justice system involvement (both juvenile and criminal justice) among the Aged Out and Placement groups that allow us to compare these groups while controlling for demographic factors and relevant aspects of youths' care careers.

The repeated measures binary logistic regression models were performed using Generalized Estimating Equation (GEE) where children were nested within a family. GEE is an extension of the Generalized Linear Model allowing for longitudinal or clustered data (see Liang & Zeger, 1986). The advantage of using a GEE model is that this procedure provides unbiased marginal (population-average) regression coefficients regardless of the correlation structure of the errors (Ghisletta & Spini, 2004). This occurs because the procedure allows for the specification of a working correlation matrix to account for the within-subject correlation of the dependent variable of various distributions (Ballinger, 2004). Since children from the same family will on average be more similar than children from different families, the assumption of statistical independence may be violated, necessitating a model that allows for clustering of children within families. One such covariance structure is the exchangeable form which specifies a constant relationship between all subjects nested within a cluster. The GEE models used the exchangeable correlation structure.

4. Results

4.1. Bivariate comparisons

Table 1 presents demographic characteristics for the three groups. As is evident from the table, young women were slightly overrepresented among youth who have aged out of care as they comprised 55% of those in the Aged Out group compared to 52% of the Placement and 51% of the No Placement groups. African American youth were substantially overrepresented among the Aged Out group, as 65% of the individuals who have aged out were African American compared to 56% of the Placement and 42% of the No Placement groups. As is evident from the table, the average age of the Aged Out group at the time the data were extracted was 20.4 years old, and, while it was significantly less, statistically speaking, than that of the other two groups of child welfare involved youth, the overall differences were negligible.

Table 2 presents the placement experiences of the Placement and Aged Out groups. The No Placement group was excluded from these comparisons because individuals in this group did not spend time in out-of-home placement. As shown in the table, the two groups did not differ on age at first out-of-home placement. Yet, youth in the Aged Out group did spend a significantly longer period of time in out-of-home placement (4.6 years) than the Placement Group (1.2 years) and experienced more distinct out-of-home placements (8.2 different placements on average for the Aged Out group compared to 3.2 for the Placement group). This comparison was somewhat misleading, however, given that our definition of Aged Out youth required that youth be in out-of-home care a total of 1 year or longer. When the comparison was restricted to individuals in out-of-home placement for a year or longer, the difference in the amount of time spent in out-of-home placement between the groups decreased (4.6 compared to 3.2 years) but was still significant. Similarly, when the Placement group was restricted to those in out-of-home placement for 1 year or more the difference in the number of out-of-home placements between the two groups remains significant, but was less substantial (5.2 different placements on average for the Placement group).

Table 2 also includes comparisons of the type of placements where young people spent their time. As is evident from the table, a significantly higher percentage of individuals in the Aged Out group had ever been placed in a foster care setting, although large percentages of both groups spent at least some time in these settings (80% for the Aged Out group compared to 64% for the Placement group). A significantly higher percentage of individuals in the Aged Out group (73%), also spent time in a congregate care living arrangement (group home or residential treatment facility) than those in the Placement group (55%). There was no difference between the two groups in the percentage of total time out of home spent in foster care settings, but youth in the Placement group did spend a slightly higher proportion of their time in congregate care settings (41% compared to 37%). Despite this, the Aged Out group actually spent substantially more total time in these settings (1.5 years compared to 0.3 years [0.8 years among those in the Placement group who spent at least one year in out-of-home care]). At the same time, individuals in the Aged Out group were significantly less likely to *only* be placed in foster care settings (23% compared to 40% for

the Placement group) but were also less likely to be placed *only* in a congregate care setting (13% compared to 31% for the Placement group).

In large part, this latter finding was explained by the fact that the Placement group includes many youth who came into care in their adolescence and spent a brief time in congregate care settings. In fact, when the sample was restricted to those who spent a year or more in out-of-home care (which excludes these youth who had only brief stays in congregate care), the percentage of youth in the Placement group who were placed *only* in congregate care facilities decreases to 11%, the percentage of time spent in congregate care settings drops to 25%, and the percentage of time in foster care settings increases to 70%. Thus, when comparing youth who spent a year or more in out-of-home placement, it was apparent that individuals in the Aged Out group were more likely to be placed in congregate care settings and to spend a greater percentage of their time in these settings. In addition, as the table shows, individuals in the Aged Out group were much more likely to run from placement (40% of youth in this group ran at least once) compared to the Placement group (13%).

Table 3 presents the percentage of youth in the three groups who were involved in six other systems at some point in their lives—mental health, drug and alcohol, employment and training, hunger and housing, juvenile justice and criminal justice, including data on specific types of mental health and drug and alcohol services. As is evident in the table, the young people who aged out of care had extensive involvement in these systems, ranging from 84% of the youth being involved (at some point) in the mental health system to 8% being involved in the hunger and housing system. With regard to involvement in the various systems, individuals in the Aged Out group had higher rates of involvement in the mental health system (84%) than those in the Placement (70%) and No Placement (37%) groups. At the same time, youth in the Placement group had higher rates of mental health system involvement than those in the No Placement group. Further, the groups differed significantly from each other with regard to involvement in the seven mental health services, with a higher percentage of individuals in the Aged Out group involved in these services than those in the other two groups and a higher percentage of the Placement group involved than the No Placement group.

A significantly higher percentage of individuals in the Aged Out group (41%) also had involvement in the drug and alcohol system than the other two groups. Similar to mental health, the Placement group (26%) differed significantly from the No Placement group (10%). Similar patterns emerged with regard to both the Employment and Training and Hunger and Housing systems, with a higher percentage of individuals in the Aged Out group involved in these systems, followed by those in the Placement group and then percentages among the No Placement group significantly lower.

The preceding findings have shown that young people who have aged out of the child welfare system differ from other child welfare involved youth with regard to many of their experiences in the child welfare system and their involvement in other social service systems. However, the situation changed somewhat when examining the justice system involvement of these groups. Similar to findings regarding involvement in other systems, a lower percentage of individuals in the No Placement group had been involved in the juvenile

justice system or have spent time in the county jail than individuals in the Aged Out and Placement groups. No significant differences existed, however, between the Aged Out and Placement groups with regard to involvement in either the juvenile or criminal justice system. In fact, the percentages of individuals in these two groups who were involved in the justice systems are almost identical.

4.2. Logistic regressions on justice system involvement

These findings indicate that young people whose families were involved in the child welfare system when they were adolescents had similar rates of justice system involvement whether they were in the Aged Out or Placement group. Given this finding, we ran two logistic regression models to examine differences between individuals in the Aged Out and Placement groups while accounting for the effects of demographic characteristics, child welfare system experiences, and other system involvement. The first model examined juvenile justice involvement and the second model examined involvement in the county jail. Table 4 presents the intercorrelations for the variables included in the models.

Table 5 presents the findings of the regression models predicting justice system involvement. As shown in the first column of the table, individuals in the Aged Out group were actually less likely than those in the Placement group to be involved in the juvenile justice system, when accounting for the effects of demographic characteristics, aspects of care careers, and other system involvement. Among the demographic characteristics, race and gender were significant predictors, with young women much less likely than young men to be involved in juvenile justice and African American youth approximately twice as likely as White youth to have such involvement. Placement in congregate care was not a predictor of juvenile justice involvement, although youth with more placements were more likely to be involved (7% increase in likelihood for each additional placement). At the same time, youth who had been in care for a longer period of time were *less* likely to be involved in the juvenile justice system (5% decrease in likelihood for each additional year in care). Youth who ran away from placement were approximately twice as likely to be involved in the juvenile justice system as those who did not. Individuals who were involved in the mental health system were more than twice as likely to be involved in the juvenile justice system and those involved in the drug and alcohol system close to twice as likely.

Table 5 also presents the results of the model predicting criminal justice involvement. Similar to the juvenile justice model, individuals in the Aged Out group were significantly less likely to spend time in the county jail than those in the Placement group, when accounting for the effects of other factors. Also similar to the juvenile justice model, young men and African American youth were more likely to spend time in the county jail. Unlike the juvenile justice model, none of the measures of child welfare experiences—congregate care, number of placements, years in out-of-home placement—was significantly related to jail involvement, except that youth who ran from placement at least once were more likely to have spent time in the county jail. Individuals involved in the mental health, drug and alcohol, and juvenile justice systems were all more likely to have spent time in the county jail. In fact, individuals who had juvenile justice involvement are approximately 3.5 times

more likely to have spent time in the county jail than those who were not involved in the juvenile justice system.

5. Discussion

A primary goal of this article was to provide a descriptive profile of the characteristics, care careers, and other system involvement of youth who have aged out of the child welfare system. To enhance understandings of the experiences and outcomes of these young people, we compared them with two groups of child welfare involved youth—those whose families were involved in the child welfare system but were not in out-of-home placement and those who were in placement but did not age out. The use of comparison groups consisting of other child welfare involved youth, while still an imperfect comparison, provides an opportunity to better understand how the experiences and outcomes of youth who aged out of the child welfare system compare to individuals who experienced similar risk factors during their adolescence.

When examining the results of these analyses, several findings emerge that are relevant to understanding the challenges facing youth who age out of the child welfare system. A striking finding is that African American youth are overrepresented among youth in the Aged Out group. The overrepresentation of African American youth becomes even more apparent when examining all three groups in to the Allegheny County youth population (of which African American youth comprise just 18% and White youth 77%). Thus, while African American youth in the county are over three times as likely as White youth to be in the No Placement group, they are more than six times as likely to be in the Placement group and almost 10 times as likely to be in the Aged Out group. While this finding is consistent with other studies (e.g., Courtney, Terao, & Bost, 2004), the analyses presented here do not address the question of *why* African American youth are so substantially overrepresented among individuals who age out of the child welfare system. Clearly, this is an area in which further research is needed.

What is clear from the results is that, similar to other studies, youth in the Aged Out group spent considerable time in out-of-home placement and experienced substantial placement instability (e.g., McMillen & Tucker, 1999). Also similar to other studies, high percentages of these youth spent time in a congregate care setting and many spent a substantial amount of time in these settings (e.g., Courtney et al., 2004; McMillen & Tucker, 1999). When comparing the care careers of the Aged Out and Placement groups, we find that individuals in the Aged Out group spent more time in out-of-home placement, experienced more placement instability, were less likely to only spend time in a foster care setting, and were more likely to have lived in congregate care settings regardless of whether the Placement sample is restricted to those who spent a year or more in care. Although individuals in the Placement group were more likely to have only been placed in a congregate care facility and to have spent a higher percentage of their time in these settings than individuals in the Aged Out group, this was because many youth in that group came into out-of-home placement during adolescence and spent short periods of time in congregate care. When the comparison was restricted to individuals who spent a year or more in out-of-home care, individuals in

the Aged Out group spent a higher percentage of time in congregate care and a higher percentage of youth in this group only spent time in these settings.

Further, our findings reveal that youth who aged out of care have high levels of involvement in other systems—mental health (84%), drug and alcohol (41%), juvenile justice (24%), employment and training (20%), criminal justice (19%), and housing and homeless (8%). Overall, 88% of the youth who aged out of care were involved in child welfare and at least one other system and 54% were involved in at least two other systems. The high levels of other system involvement among youth in our sample are consistent with numerous other studies that find that youth who aged out of care are involved in other systems at high levels (e.g., Courtney et al., 2010). The comparison of the Aged Out group to the other groups provides additional context to better understand the other system involvement of aged out youth. As these analyses demonstrate, youth in the Aged Out group were significantly more likely to be involved in the mental health, drug and alcohol, employment and training, and hunger and housing systems than the other two groups. A significantly higher percentage of individuals in the Aged Out group were also involved in the various types of mental health and drug and alcohol services. This does not mean that youth in the other groups were involved in these systems at low levels. In fact, youth in the other groups, especially those in the Placement group, had high rates of involvement in these systems as well. Yet, youth in the Aged Out group had substantial, and higher, levels of involvement in these other systems.

The meaning of involvement in these other systems varies. In part, the high rates of involvement in the mental health system can be attributed to a policy in the county that requires youth to be evaluated for mental health services. Given that individuals in the Aged Out group are, by definition, in out-of-home placement during their adolescence they are much more likely to have at least some contact with mental health system involvement. At the same time, however, many youths' involvement in the mental health system is extensive, as many individuals in the Aged Out group received multiple types of mental health services and were involved intensively in the mental health service system. For example, youth in the Aged Out group who were involved in the mental health system received 3.5 different service types, on average, and the median amount of money spent for their mental health services was almost \$7000. Further, the majority of these youth were on medication, as 62% of those who received mental health services had attended a medication management appointment (which amounts to 52% of all youth who aged out having attended medication management appointments). Slightly more than one third of the aged out youth involved in mental health received inpatient services (28% of the total sample of aged out youth).

Involvement in the mental health system can be interpreted in a variety of ways. In many respects, it can be construed as positive indication that youth are receiving help in dealing with existing mental health issues. Young people involved in the child welfare system have experienced substantial hardships and the receipt of mental health services can help them address the consequences of these experiences. At the same time, the existence of mental health problems for which they are receiving mental health services presents a potential challenge for youth as they make the transition out of the system and into adulthood. The vast majority of these youth, however, do not continue to receive mental health services as

they age out of the child welfare system (Shook et al., 2010). Thus, it is likely that many youth who could use continued services are no longer receiving them. Further, the high rates of medication use among this population are concerning. Given recent evidence that psychotropic medication helps only with severe depression but not with mild or moderate forms (Fournier et al., 2010), it is questionable whether medication is the best way to provide emotional support to many of these youth. In fact, concern about the overmedication of children in foster care recently prompted a Senate panel to ask the Government Accountability Office to investigate this issue (Wilson, 2010).

The high rates of involvement of individuals in the Aged Out group in the drug and alcohol, employment and training, and hunger and housing systems can also have a variety of meanings, both positive and negative. The consequences of justice system involvement, however, are fairly clear. Justice system involvement has been found to affect the development of young people in numerous ways and is associated with numerous negative consequences (Chung, Little, & Steinberg, 2005; Holzer, Raphael, & Stoll, 2003; Uggen & Wakefield, 2005). Our findings indicate the youth in the Aged Out group have high levels of both juvenile (24%) and criminal justice (19%) involvement. When the sample is restricted to those who are 20 years old or older (more time at risk for criminal justice involvement), the situation is especially bleak. For example, 56% of African American young men in the Aged Out groups who were 20 and older at the time of data extraction had been involved in the juvenile and/or criminal justice system. Most alarming, 44% of these individuals had spent time in the county jail. The other groups of youth who had aged out had lower rates of justice system involvement, but they were still alarmingly high. Forty-four percent of White young men, 26% of African American young women, and 23% of White young women aged 20 and over had justice system involvement. These findings are consistent with numerous other studies that have shown that young people who aged out of the child welfare system have been involved in the justice systems at high levels (e.g., Courtney et al., 2010).

Importantly, our bivariate analyses did not reveal differences in justice system involvement between the Aged Out and Placement groups (the No Placement group had significantly lower levels of justice system involvement). In fact, the percentages of youth in these two groups who were involved in the juvenile and criminal justice system were nearly identical. Further, according to our multivariate models, accounting for demographic characteristics, placement experiences, and other system involvement, youth in the Aged Out group were actually less likely to be involved in both the juvenile and criminal justice systems. There are a number of points to be made based on the results of these models. First, this is an important finding. Clearly, this is only one study from one county so the finding needs to be taken with caution until more research confirms these results. It is, however, consistent with other studies indicating that child welfare involvement, particularly out-of-home placement, is associated with subsequent justice system involvement (Jonson-Reid, 2002; Jonson-Reid & Barth, 2000; Ryan & Testa, 2005). What it suggests is that youth in placement during their adolescence who do not age out of care have similar, if not higher, risk of justice system involvement than those who do officially “age out.” Youth aging out of the child welfare system, for good reason, have received increased attention in Allegheny County and nationally. Yet, this finding indicates that increased attention to the needs of other child

welfare involved youth, particularly those in out-of-home placement during their adolescence, is also necessary.

A second key point is that the multivariate results need to be interpreted in context. The bivariate results indicate that these two groups are involved in the justice system at similar levels. The purpose of the multivariate models was to see what factors, then, were associated with justice system involvement. As the models reveal, a range of demographic, placement experience, and other system involvement factors were associated with an increased likelihood of justice system involvement, and our descriptive analyses show that youth in the Aged Out groups were more likely to have these characteristics or experiences. It is somewhat misleading, therefore, to control for these characteristics in multivariate models because these characteristics and experiences are important to understanding who these kids are and what they have gone through. Based on our sample, individuals who aged out of the child welfare system are largely African American youth who have had high levels of involvement in other systems, have experienced substantial placement instability, and have spent considerable time in out-of-home care, especially during their adolescence.

The utility of the multivariate models, however, is that they enable us to identify those factors that are associated with a higher likelihood of justice system involvement. The bivariate correlations reveal positive relationships between justice system involvement and race, gender, number of placements, congregate care, mental health system involvement, drug and alcohol system involvement, running away. In the multivariate models, African American youth and males are more likely to be involved in both the juvenile and criminal justice systems (older individuals are more likely to be involved in the criminal justice system). Other system involvement is also associated with a greater likelihood of involvement in both systems. The effects of placement experiences (placement instability and congregate care) are somewhat mixed, as number of placements is only significant in the model predicting juvenile justice involvement and congregate care is not significant in either model.

Increased attention is being paid to providing independent living services, allowing more youth to stay in care longer (i.e., beyond 18th birthday), providing access to health care, and to otherwise helping these youth make the transition to adulthood (Courtney, 2009). This attention is clearly necessary based on what we know about the experiences and outcomes of these youth after they leave care. Yet, our findings provide evidence that young people who do not age out but who spent time in out-of-home placement have similar outcomes, at least with regard to justice system involvement. These findings are consistent with other studies that show high levels of involvement in the justice systems among youth who were in out-of-home placement (e.g., Jonson-Reid, 2002). Recently, Courtney (2009) expressed concern that the focus on youth aging out of care may be shifting attention away from youth who were in out-of-home placement during their adolescence but did not age out. Our findings indicate that these concerns are well warranted and that this latter group does need attention.

This raises important questions about what that attention should look like. While we cannot directly answer these questions based on our analyses, they suggest the need to think critically and creatively about the needs of these young people and how we should respond.

For example, our findings indicate that the vast majority of these young people are receiving services of some type, particularly mental health and drug and alcohol services. Yet, our findings also indicate that involvement in mental health and drug and alcohol systems is strongly related to justice system involvement. Clearly, we cannot determine the effectiveness of these services based on our analyses. The strength of these relationships, however, suggests that youth involved in these systems are exhibiting behaviors or experiencing problems that are associated with involvement in the justice systems. Developing more effective ways to identify and address these behaviors or problems, then, is necessary to interrupt the drift of young people from child welfare to the justice systems.

This task is even more important in light of the high levels of placement instability and extent to which these young people spend time in congregate care settings. Although none of our child welfare variables were related to criminal justice involvement except whether a youth had run from placement, most of the child welfare variables were related to juvenile justice involvement. At the same time, all of the child welfare variables were strongly, in most cases, related to mental health and drug and alcohol system involvement. This indicates that youth who were experiencing or exhibiting behavioral, mental health and/or substance abuse problems were more likely to experience placement instability and to spend time in congregate care settings. In large part, then, it is clear that many youth, especially those who are experiencing the most problems, bounce around from placement to placement and spend portions of their adolescence living in institutional settings. Although these settings might be appropriate for some youth for limited periods, they also might exacerbate pre-existing problems or lead to other problems. Further, placement instability and placement in congregate settings limit opportunities to develop supportive relationships with adults and others who can help youth as they transition out of the system and to adulthood. Consequently, increased attention needs to be paid to the types of settings in which these young people spend their time.

In sum, this paper makes several contributions. It presents comparisons of young people who aged out of the child welfare system with other groups of child welfare involved youth who are likely to have similar background experiences and be facing similar risks. While youth who have aged out of care have experienced more difficult care careers and more extensive other system involvement than those who had child welfare involvement but were not placed out of home and those who were placed out of home but did not age out, their rates of justice system involvement were no worse than the group of youth who had experienced out of home placement but did not age out. This finding necessitates that we ensure that our focus on youth aging out of care does not lead to the exclusion of other youth who have had similar experiences but did not age out from needed services and supports.

References

- Aarons GA, Hazen AL, Leslie LK, Hough RL, Monn AR, Connelly CD, et al. Substance involvement among youths in child welfare: The role of common and unique risk factors. *The American Journal of Orthopsychiatry*. 2008; 78(3):340–349. [PubMed: 19123753]
- Aldgate J. Graduating from care—A missed opportunity for encouraging successful citizenship. *Children and Youth Services Review*. 1994; 16(3/4):255–272.

- Ballinger GA. Using generalized estimating equations for longitudinal data analysis. *Organizational Research Methods*. 2004; 7:127–150.
- Barth, RP. *Institutions vs foster homes: The empirical base for a century of action*. Chapel Hill, NC: UNC School of Social Work, Jordan Institute for Families; 2002.
- Chung, HL., Little, M., Steinberg, L. The transition to adulthood for adolescents in the juvenile justice system: A developmental perspective. In: Osgood, DW, Foster, ME, Flanagan, C., Ruth, GR., editors. *On your own without a net: The transition to adulthood for vulnerable populations*. Chicago: University of Chicago Press; 2005. p. 68-91.
- Cook RJ. Are we helping foster care youth prepare for their future? *Children and Youth Services Review*. 1994; 16(3/4):213–229.
- Courtney ME. The difficult transition to adulthood for foster youth in the U.S.: Implications for the state as corporate parent. *Social Policy Report*. 2009; 13(1):3–18.
- Courtney ME, Barth RP. Pathways of older adolescents out of foster care: Implications for independent living services. *Social Work*. 1996; 41(1):75–83. [PubMed: 8560322]
- Courtney ME, Dworsky A. Early outcomes for young adults transitioning from out-of-home care in the USA. *Child and Family Social Work*. 2006; 11:209–219.
- Courtney, ME., Dworsky, A., Lee, JS., Raap, M. *Midwest evaluation of the adult functioning of former foster youth: Outcomes at ages 23 and 24*. Chicago: Chapin Hall at the University of Chicago; 2010.
- Courtney, ME., Heuring, DH. The transition to adulthood for youth “aging out” of the foster care system. In: Osgood, DW, Foster, EM, Flanagan, C., Ruth, GR., editors. *On your own without a net: The transition to adulthood for vulnerable populations*. Chicago: University of Chicago Press; 2005. p. 27-67.
- Courtney, ME., Terao, S., Bost, N. *Midwest evaluation of the adult functioning of former foster youth: Conditions of youth preparing to leave state care*. Chicago: Chapin Hall at the University of Chicago; 2004.
- Daining C, DePanfilis D. Resilience of youth in transition from out-of-home care to adulthood. *Children and Youth Services Review*. 2007; 29:1158–1178.
- Davis M, Banks S, Fisher W, Grudzinskas A. Longitudinal patterns of offending during the transition to adulthood in youth from the mental health system. *The Journal of Behavioral Health Services & Research*. 2004; 31(4):351–366. [PubMed: 15602138]
- Fournier JC, DeRubeis RJ, Hollon SD, Dimidjian S, Amsterdam JD, Shelton RC, et al. Antidepressant drug effects and depression severity: A patient-level meta-analysis. *Journal of the American Medical Association*. 2010; 303(1):47–53. [PubMed: 20051569]
- Ghisletta P, Spini D. An introduction to generalized estimating equations and an application to assess selectivity effects in a longitudinal study on very old individuals. *Journal of Educational and Behavioral Statistics*. 2004; 29:421–437.
- Harris MS, Jackson LJ, O’Brien K, Pecora PJ. Disproportionality in education and employment outcomes of adult foster care alumni. *Children and Youth Services Review*. 2009; 31:1150–1159.
- Holzer, HJ., Raphael, S., Stoll, MA. *Employment barriers facing ex-offenders*. Urban Institute Reentry Roundtable Discussion Paper. New York: NYU Law School; 2003.
- Hook, JL., Courtney, M. *Employment of former foster youth as young adults: Evidence from the Midwest study*. Chicago: Chapin Hall at the University of Chicago; 2010.
- Jonson-Reid M. Exploring the relationship between child welfare intervention and juvenile corrections involvement. *The American Journal of Orthopsychiatry*. 2002; 72:559–576. [PubMed: 15792041]
- Jonson-Reid M, Barth RP. From placement to prison: The path to adolescent incarceration from child welfare supervised foster or group care. *Children and Youth Services Review*. 2000; 22(7):493–516.
- Liang K, Zeger SL. Longitudinal data analysis using generalized linear models. *Biometrika*. 1986; 73:13–22.
- McCoy H, McMillen JC, Spitznagel EL. Older youth leaving the foster care system: Who, what, when, where, and why? *Children and Youth Services Review*. 2008; 30:735–745. [PubMed: 19122759]
- McMillen JC, Tucker J. The status of older adolescents at exit from out-of-home care. *Child Welfare*. 1999; 78(3):339–360. [PubMed: 10335595]

- McMillen JC, Zima BT, Scott LD, Auslander WF, Munson MR, Ollie MT, et al. Prevalence of psychiatric disorders among older foster youth in the foster care system. *Journal of American Academy of Child Adolescence Psychiatry*. 2005; 44(1):88–95.
- Pecora PJ, Kessler RC, O'Brien K, White CR, Williams J, Hiripi E, et al. Educational and employment outcomes of adults formerly placed in foster care: Results from the Northwest foster care alumni study. *Children and Youth Services Review*. 2006; 28:1459–1481.
- Pecora, PJ., Kessler, RC., Williams, J., O'Brien, K., Downs, AC., English, D., et al. Improving family foster care: Findings from the Northwest Foster Care Alumni Study. Seattle, WA: Casey Family Programs; 2005.
- Pecora PJ, Williams J, Kessler RC, Hiripi E, O'Brien K, Emerson J, et al. Assessing the educational achievements of adults who were formerly placed in family foster care. *Child and Family Social Work*. 2006; 11:220–231.
- Pullmann MD. Predictors of criminal charges for youth in public mental health during the transition to adulthood. *Journal of Child and Family Studies*. 2010; 19:483–491. [PubMed: 20936078]
- Reilly T. Transition from care: Status and outcomes of youth who age out of foster care. *Child Abuse & Neglect*. 2003; 82(6):727–746.
- Rosenblatt JA, Rosenblatt A, Biggs EE. Criminal behavior and emotional disorder: Comparing youth served by the mental health and juvenile justice systems. *The Journal of Behavioral Health Services & Research*. 2000; 27(2):227–237. [PubMed: 10795131]
- Ryan JP, Marshall JM, Herz D, Hernandez PM. Juvenile delinquency in child welfare: Investigating group home effects. *Children and Youth Services Review*. 2008; 30(9):1088–1099.
- Ryan JP, Testa MF. Child maltreatment and juvenile delinquency: Investigating the role of placement instability. *Children and Youth Services Review*. 2005; 27:227–249.
- Shook, JJ., Goodkind, S., Pohlig, RT., Schelbe, L., Herring, D., Kim, KH. Unpublished manuscript. 2010. Patterns of mental health, substance abuse, and justice system involvement among youth aging out of child welfare.
- U.S. Department of Health and Human Services. The AFCARS Report: Preliminary estimates for FY 2008 as of October 2009. Administration for Children and Families, Administration on Children, Youth and Families; 2009. Children's Bureau Retrieved April 18, 2010 from, http://www.acf.hhs.gov/programs/cb/stats_research/afcars/tar/report16.htm
- Uggen, C., Wakefield, S. Young adults reentering the community from the criminal justice system: The challenge of becoming an adult. In: Osgood, DW, Foster, ME, Flanagan, C., Ruth, GR., editors. *On your own without a net: The transition to adulthood for vulnerable populations*. Chicago: University of Chicago Press; 2005. p. 114-144.
- Vaughn M, Ollie MT, McMillen JC, Scott J, Lionel D, Munson MR. Substance use and abuse among older youth in foster care. *Addictive Behaviors*. 2007; 32:1929–1935. [PubMed: 17239547]
- September 1 Wilson, R. Child's ordeal shows risks of psychosis drugs for young. *The New York Times*. 2010. Retrieved from <http://www.nytimes.com/2010/09/02/business/02kids.html?emc=eta1>
- Zima BT, Bussing R, Freeman S, Yang X, Belin TR, Forness SR. Behavior problems, academic skill delays and school failure among school-aged children in foster care: Their relationship to placement characteristics. *Journal of Child and Family Studies*. 2000; 9(1):87–103.

Table 1

Demographic characteristics.

	No Placement	Placement	Aged Out
% African American	42	56	65
% White	52	37	28
% Biracial	5	6	6
% Other racial/ethnic group	1	1	1
% Male	49	48	45
Age (Mean)	20.5	20.6	20.4

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Table 2

Comparison of care careers of youth in out-of-home placement and aged out youth.

	Placement	Aged Out	t	df
Age at first placement (years)	10.5	10.8	-1.79	3126
Length out-of-home placement (years)	1.3	4.6	-32.89***	1904
Total number placements	3.4	8.2	-29.12***	1908
Foster home ever (%)	64	80	-10.58***	3241
Foster home only placement (%)	40	23	11.77***	3210
Foster home percent time	53	54	-.55**	3170
Congregate care ever (%)	55	73	-11.92***	3117
Congregate care only placement (%)	31	13	13.75***	3513
Congregate care percent time	41	37	2.38*	3296
Runaway ever (%)	16	40	-15.97***	2237

*
p<.05.**
p<.01.***
p<.001.

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Table 3

Three-group comparisons of percentages involved with other systems.

	No Placement	Placement	Aged Out	<i>F</i>
Mental health	37 _a	70 _b	84 _c	871.93 ^{***}
Outpatient	24 _a	44 _b	71 _c	2413.79 ^{***}
Administrative case management	23 _a	39 _b	59 _c	1673.69 ^{***}
Medication management	16 _a	30 _b	55 _c	1580.85 ^{***}
Inpatient	8 _a	14 _b	28 _c	622.85 ^{***}
Crisis	8 _a	16 _b	25 _c	577.59 ^{***}
Partial	5 _a	9 _b	17 _c	340.71 ^{***}
Family based	5 _a	9 _b	13 _c	253.06 ^{***}
Drug and alcohol	10 _a	26 _b	41 _c	534.25 ^{***}
Employment and training	7 _a	13 _b	20 _c	138.61 ^{***}
Hunger and housing	2 _a	5 _b	8 _c [*]	84.79 ^{***}
Juvenile justice	11 _a	22 _b	24 _b	131.15 ^{***}
Criminal justice	10 _a	20 _b	19 _b	119.40 ^{***}

Note: Percentages with different subscripts within rows are significantly different from each other based on Tukey (equal variances assumed) and Games–Howell (equal variances not assumed) post-hoc tests.

*
p<.05.

**
p<.01.

p<.001.

Table 4

Intercorrelations.

	1	2	3	4	5	6	7	8	9	10	11
1 Juvenile justice											
2 Jail	.33**										
3 Age	-.01	.18**									
4 Female	-.23**	-.28**	.01								
5 African American	.11**	.11**	-.05**	-.02							
6 Years in placement	.05**	.01	-.01	-.06**	.19**						
7 # of placements	.16**	.05**	-.03	.04*	.17**	.57**					
8 Congregate care	.07**	.05**	.03	.03	-.10**	.05*	.34**				
9 Runaway	.15**	.07**	-.03	.10**	.06**	.16**	.16**	.34**			
10 Aged out	.03	-.03	-.06**	.02	.11**	.53**	.48**	.18**	.27**		
11 Mental health	.15**	.08**	-.03	-.02	-.11**	.14**	.25**	.25**	.16**	.16**	
12 Drug and alcohol	.16**	.14**	-.04*	-.04*	-.07**	.04*	.23**	.30**	.20**	.14**	.27**

* p<.05.

** p<.01.

Table 5

Odds ratios from logistic regressions on justice system involvement.

	Juvenile justice	Criminal justice
Age	1.01	1.51 ***
Female	.27 ***	.23 ***
African American	1.97 ***	2.06 ***
Years in placement	.95 **	.98
Number of placements	1.07 ***	.99
Congregate care	.82 *	1.14
Runaway	1.98 ***	1.40 ***
Aged out	.72 **	.70 **
Mental health	2.29 ***	1.42 **
Drug and alcohol	1.68 ***	1.85 **
Juvenile justice		3.70 **

*
p<.05.**
p<.01.***
p<.001.

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