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Examination of the Extent to which Employment Factors are Associated with Reduced Child Maltreatment Potential and Drug Use

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Abstract

Job assistance programs are commonly recommended for parents of children who have been victimized by child maltreatment, particularly when illicit drugs are indicated. However, the relationship between employment factors, substance abuse and risk of child maltreatment has received limited empirical attention. Therefore, the current study examines employment factors in a sample of 72 mothers who were referred by Child Protective Services (CPS) for treatment of substance abuse and child neglect. Child maltreatment potential was found to be negatively associated with number of hours employed and self-reported happiness with employment. The association between child abuse potential and personal income of participants approached significance ($p = .057$), and the results were not influenced by social desirability. Employment satisfaction significantly contributed to the prediction of child maltreatment potential over and above other employment factors and control variables. These findings suggest that when mothers are involved in CPS their risk of perpetrating child maltreatment may be reduced when they are assisted in gainful employment that is personally satisfying. Happiness with employment was the only employment factor correlated (inversely) with substance use (biological testing, self-report of participants). Future directions are discussed in light of the results, including the importance of considering employment satisfaction when conducting vocational assistance programs in this population.

Keywords

employment; child maltreatment; substance abuse; mothers

Introduction

During the past 30 years, reports of child maltreatment have substantially increased, particularly reports of child neglect, which account for approximately three quarters of all referrals to child protective services (CPS) (Christmas, Wodarski, & Smokowski, 1996; U.S. Department of Health and Human Services, 2010). Child neglect is characterized by the

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omission of adequate caregiving that endangers the psychological and physical wellbeing of children, including, but not limited to, insufficient nutrition, supervision, protection and/or dangerous and unsanitary living conditions (Lutzker, 1990).

The overwhelming majority of identified perpetrators of child neglect are mothers (Dufour et al., 2008). Most children who are neglected have mothers who abuse substances (Jones, 2008; Magura & Laudet, 1996), and mothers who are served by CPS are usually unemployed (Carlson, Williams & Shafer, 2012; Jones, 2008) and impoverished (e.g., Coulton, Korbin, Su, & Chow, 1995; Drake & Pandey 1996; Gelles, 1992; Whipple & Webster-Stratton, 1991).

Attempts have been made to improve the health of impoverished children through contingent provision of cash to their caregivers for involving them in health services (Owusu-Addu & Cross, 2014; Roelen, 2014). Along this vein, Cancian, Yang and Slack (2013) found a slight increase in welfare benefits to low income mothers significantly reduced the number of times these mothers were reported to CPS. However, Lee (2010) determined that mothers who relied completely on welfare benefits as their source of financial support were found to have more negative family outcomes than mothers who earned some or all of their income from employment.

These results suggest that when mothers are served by CPS it may be important to assist them in gainful employment while providing limited welfare benefits. Indeed, public assistance programs (i.e., Temporary Assistance for Needy Families; TANF) have increasingly required recipients of welfare benefits to engage in work related activities or progress towards employment (Hogue et al., 2010). However, studies of low-income families within child welfare have rarely examined the influence personal income has on the safety of children (Liu, 2011; Pollack & Reuter, 2006; Vartanian & McNamara, 2004).

Extant studies indicate maternal employment in low income and child welfare populations may be associated with reduced incidences of child maltreatment (Beimers & Coulton, 2011; Berger, 2004; Prillentrinsky & Peirson, 1999; Slack et al., 2003). Most studies that have examined the relationship between employment factors and child maltreatment have measured child maltreatment as reported incidences (Beimers & Coulton, 2011; Cancian, Yang & Slack, 2013; Eckenrode et al., 2014; Slack et al., 2003), which is a relatively insensitive measure of risk (Finkelhor et al., 2014; Kalichman, 1993). This is problematic, as psychometrically validated instruments, such as the Child Abuse Potential Inventory (CAPI: Milner, 1990; Milner, 1986), have been indicated to better predict child maltreatment potential. The CAPI also has clinical applications. For instance, Donohue et al. (2014) determined that a family behavior therapy that included job finding and financial management skills training components was associated with lower child maltreatment potential utilizing this measure.

Along a different vein, employment has consistently been found to be one of the strongest predictors of abstinence from illicit drug and alcohol use (Capone et al., 1986; Hermalin, Husband, & Platt, 1990; Magura & Staines, 2004; Platt, 1995; Platt et al., 1998), and behavioral therapies that include interventions that emphasize job skills training have led to

higher rates of employment and reduced substance use (see Azrin et al., 1994; Godley et al., 2008; Petry et al., 2014; Silverman et al., 2002; Taylor, Mudford & Phillips, 2011). These findings have led scientists to recommend vocational services as a necessary component in substance abuse treatment (Defulio et al., 2009; Hser et al., 1999; Petry et al., 2014; Svikis et al., 2012). However, most treatment facilities in the United States do not include vocational services in their programming (West, 2008). In treatment facilities that do include vocational services, the primary goal is to simply get clients employed (Webster et al., 2014) without consideration of other factors, such as job incompatibilities with child care activities (Kissin et al., 2014) or irregularities in work shift scheduling (Han, Huang, and Williams (2013).

Several of the previously discussed studies have investigated the influence of employment on substance use and child maltreatment. However, investigators have yet to examine these factors concurrently. Moreover, very few investigators have incorporated standardized assessment tools in their studies to understand the relationship between employment, substance use and child maltreatment (Donohue, Romero, & Hill, 2006; Slemp & Vella-Brodick, 2013).

Gaining a better understanding of the relationship between employment factors, substance use and child maltreatment potential will inevitably assist in structuring vocational services to the needs of mothers who are served by CPS (Cregan, Kulik & Salinger, 2013; Hawthorne, 1977; Paul, Sanson-Fisher & Carey, 2013). Therefore, the current study was conducted to assist in determining the extent to which employment factors (i.e., personal income from employment, number of hours employed, and employment satisfaction) are associated with child maltreatment potential and substance use in a sample of mothers who were referred for substance abuse treatment by CPS.

Method

Participants

The participants in this study were seventy-two mothers referred to an outpatient treatment center for child neglect and substance abuse treatment by child protective services (CPS). The data were gathered within the context of a randomized controlled trial (see Donohue et al., 2014). Study inclusion criteria were that the mothers: (a) were reported to CPS for child neglect; (b) were living with the child victim who prompted the neglect referral (or it was the intention of the Court to return the child to the mother's home); (c) were identified as using illicit drugs during the 4 months prior to the referral; (d) displayed symptoms consistent with illicit Drug Abuse or Dependence at the time of referral according to the results of the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Health Disorders, fourth edition (SCID-IV; First & Gibbon, 2004); (e) were not currently receiving psychotherapeutic services (f) had at least one adult individual willing to participate in their treatment; and (g) were not primarily referred due to sexual abuse or domestic violence. The data examined in this study were extracted from the pre-intervention (baseline) assessment of the aforementioned treatment outcome study. See Table 1 for demographic information about the participants.

The current study was approved by the appropriate institutional review board for human subjects and all participants completed informed consent prior to study initiation. There are no conflicts of interest to report, and no adverse events were determined.

Procedure

The CPS agency was notified of the inclusionary criteria for this study and referrals were made by caseworkers. Once referrals were received an intake specialist contacted both CPS and the participants separately by telephone. When participants qualified for the study, they were scheduled for a pre-intervention assessment consisting of a large battery of assessment measures. The data used in this study was derived from the pre-intervention assessment, and included only a portion of the total assessment battery that was administered to the participants.

The pre-intervention assessment was administered in the participants' homes by trained assessors from a neuropsychology clinic that operated independently from the treatment program. Participants were compensated for their time with a \$50 gift card for use at a local retail store. The collected data was protected by a Certificate of Confidentiality obtained from the federal government.

Measures

Covariates—The following socio-demographic variables were used as covariates in the regression analyses: the participant's age (in years), ethnicity (dummy coded), marital status (0 = single, 1 = married/cohabitating), Total Stress score derived from the Parental Stress Index (PSI; Abidin, 1995), number of children living in the home, number of adults living in home, mother's education level, whether the neglected child was in special education/remedial classes, whether the neglected child was diagnosed with a physical disability, and whether the child was diagnosed with developmental disability.

The Child Abuse Potential Inventory (CAPI; Milner, 1990; Milner, 1986) is a 160-item self-report inventory that is used to detect child abuse in caregivers. It includes an overall Abuse Scale and seven subscales: Distress, Rigidity, Problems with Child, Problems with Family, Problems with Others, Loneliness and Unhappiness. Higher scores are indicative of greater child abuse potential. The CAPI also contains three validity scales: Lie, Random Response, and Inconsistency. The CAPI has consistently demonstrated outstanding reliability and validity (Milner, 2007). This study utilized the overall Abuse and Lie subscales for analyses. The CAPI is particularly useful for the purposes of this study because it assesses a wide variety of behaviors that could put children at risk for various forms of child maltreatment.

The Time Line Follow-Back (TLFB; Sobell & Sobell, 1992) self-report method was adapted to assess the number of hours participants reported that they were employed and the number of days that they used alcohol or illicit drugs in the four-months prior to their assessment date. Utilizing a calendar the assessment technician solicits significant events that are important to the individual (e.g., birthdays, holidays, parties). These events are utilized to facilitate recall of the occurrence of the behavior of interest (i.e., days employed, days using alcohol, days using illicit drugs). The TLFB has been extensively evaluated and has

established excellent psychometric properties (Carey, 1997; Donohue et al., 2004; Lewis-Esquerre et al., 2005; Sacks et al., 2003).

Substance use was objectively assessed through an 8-panel urinalysis toxicology screen (marijuana, cocaine, amphetamines, barbiturates, opiates, benzodiazepines, methadone, phencyclidine) utilizing conventional detection cut-offs. A positive result was coded as one, and a negative result was coded zero.

Participants' monthly income from personal employment was obtained utilizing a structured interview. Mothers were also asked to rate the extent to which they were happy with their employment utilizing a percentage scale (0% = *completely unhappy*, 100% = *completely happy*).

Results

Employment and Child Maltreatment Potential

To assess the association between employment variables and child maltreatment potential, exploratory bivariate correlational analyses were conducted (see Table 2). The CAPI Abuse subscale was associated with the total number of hours employed and overall happiness with employment, suggesting less child abuse potential is associated with more hours employed and employment satisfaction. The participants' personal income from employment was marginally significant ($p = .057$) with child maltreatment potential.

To determine the potential influence of social desirability (participants' presenting themselves in a favorable light), the aforementioned analyses were repeated utilizing variability attributable to the CAPI Lie scale as a covariate (see Table 2). The relationship of CAPI Abuse to the total number of hours employed and overall happiness with employment remained significant. Personal income remained non-significant. Therefore, the associations between child maltreatment potential and employment variables did not appear to be influenced by social desirability.

To determine the unique contribution of each employment factor (e.g., hours employed, employment satisfaction, and personal income from employment) to the prediction of CAPI Abuse scores while considering stress related covariates, hierarchical multiple regression was used. In the first step of each analysis, the other employment factors were added, along with CAPI Lie scores, age, ethnicity (dummy coded), marital status (dummy coded), PSI Total Stress score of the participants, number of children living in the home, mother's education level, whether child was in special education/remedial classes, whether child diagnosed with a physical disability, and whether child diagnosed with developmental disability. In the second step, the employment factor of interest was added. The change in R^2 indicates the unique contribution of that employment factor to the prediction of child abuse potential (see Table 2). Employment satisfaction contributed significantly to the prediction of CAPI Abuse, $F(1, 58) = 6.482, p < .014, R^2 = .053$. However, the number of hours employed, $F(1, 58) = 1.47, p = .230, R^2 = .012$, and total income from employment, $F(1, 58) = 0.034, p = .855, R^2 = .0003$, did not significantly contribute to the prediction.

Employment and Substance Use

To assess the association between employment factors and substance use, exploratory bivariate correlational analyses were conducted (see Table 4). Mothers' happiness with employment was associated with substance use, as measured by UA testing and the total number of days drugs were reportedly used. Thus, the more employment satisfaction these mothers experienced, the less likely they were to test positive for drugs on a UA test and report drug use. However, neither the number of hours employed by mothers nor income from mothers' personal employment was significantly related to drug use according to UA or self-report measures (all $ps > .05$).

To determine the unique contribution of each employment factor (e.g., hours employed, employment satisfaction, and personal income from employment) to the prediction of UA testing results, hierarchical multiple regression was used (see Table 5). Similar to the aforementioned multiple regression analyses, the other employment factors were added, along with age, ethnicity (dummy coded), marital status (dummy coded), educational level, and PSI Total Stress scores of participants, number of children living in the home, number of adults in the home, whether the child was in special education/remedial classes, whether the child was diagnosed with a physical disability, and whether the child was diagnosed with a developmental disability in the first step. In the second step, the employment factor of interest was added. The change in R^2 indicates the unique contribution of that employment factor to the prediction of UA testing results. Employment satisfaction, $F(1, 58) = 7.68, p < .01, R^2 = .093$, and the number of hours employed, $F(1, 58) = 6.13, p < .05, R^2 = .074$, contributed significantly to the prediction of UA testing results. Total income from employment, $F(1, 58) = 1.32, p = .256, R^2 = .016$, did not significantly contribute to the prediction.

Hierarchical multiple regression analyses were conducted to determine the unique contribution of each employment factor to the overall prediction of the total number of days drugs were reportedly used (see Table 5). As in the previous regression analyses, the other employment factors were added, along with the covariates in the first model, and the employment factor of interest was added in the second model. Employment satisfaction contributed significantly to the prediction of the total days of drug use, $F(1, 58) = 6.98, p < .01, R^2 = .094$. The number of hours employed, $F(1, 58) = .538, p = .466, R^2 = .007$, and total income from employment, $F(1, 58) = .477, p = .492, R^2 = .006$, again did not significantly contribute to the prediction.

Discussion

This study examined the relationship between employment factors and substance use and child maltreatment potential in a sample of mothers who were referred by CPS for treatment of substance abuse and child neglect. By exclusively focusing on mothers who were pursuing treatment at the recommendation of CPS this study uniquely contributes to the existing literature in its real-world implications (i.e., external validity). This study also contributed to the child maltreatment and substance abuse literature in its utilization of objective biological assessment of drug use (i.e., urinalysis testing) and social desirability measurement.

The study results indicated that mothers' happiness with their employment and number of hours employed were associated with child maltreatment potential, and this relationship did not appear to be influenced by social desirability. The association between child maltreatment potential and personal income was determined to be marginally non-significant, which is consistent with the results of other studies that have examined this relationship utilizing reports of child maltreatment (e.g., Cancian, Yang & Slack, 2013; Eckenrode et al., 2014). Mothers' employment satisfaction was the only employment variable examined in this study to be predictive of substance use. Therefore, the more satisfied these mothers were with their employment, the less likely they were to evidence a positive UA test or report drug use.

Implications for Practice and Policy

There is a growing body of knowledge in the field suggesting that employment should be a critical part of any intervention services for mothers in CPS. Indeed, there has been a movement in recent years to include vocational services within the context of substance abuse treatment, and this movement has been highly influenced by scientific evidence showing employment contributes to sustained outcomes following substance abuse treatment (Donohue et al., 2014; Wong & Silverman, 2007). However, it seems that despite pressure to include vocational services within the context of treatment, very few treatment providers have taken steps to integrate vocational counseling into their programming (West, 2008). The current study results substantiate the importance of including vocational services within the umbrella of substance abuse treatment, and for the first time empirically support the contention that employment satisfaction may be an important consideration in the prevention of child maltreatment (see Slemp & Vella-Brodrick, 2013).

The results of this study suggest that when mothers are served by CPS and indicated to abuse illicit drugs, the potential for them to maltreat their children may be reduced through gainful employment that is personally satisfying. There are great benefits associated with both employment, and discussing the satisfying aspects of employment (see *job club*, e.g., Azrin et al., 1994). Along this vein, the results of this study suggest it is important to develop vocational interventions in this population that are focused on job satisfaction. For mothers who are employed and assessed to evidence low employment satisfaction, interventions might focus on modifying employment related attitudes to assist positive perspective and teaching new behaviors that can assist these mothers in deriving more satisfaction from their jobs (de Graaf-Zijl, 2012; Donohue et al., 2005; Peng & Mao, 2014). Alternatively, it makes sense to assist the employees of these mothers to incorporate programs that are designed to enhance their satisfaction in the workplace environment.

Study Limitations and Future Research Directions

As in all studies, the current examination has several limitations. Specific to sampling, it should be mentioned that the data were obtained at one point in time (cross sectional) and participants were representative of persons explicitly referred for treatment by CPS for child neglect and abuse of illicit drugs (introducing selection bias). A relative strength of such sampling may include applicability of study findings to *real-world* treatment settings in the examined population. Alternatively, the results of this study may not generalize to other

populations. Thus, the determined results may have particular appropriateness to mothers who are referred to treatment for substance abuse and child neglect by CPS. To better understand generalizability of study findings, we utilized participant inclusionary criteria to delineate the sample. However, it should be mentioned that although we attempted to control several potential confounding variables in our study analyses, undetermined confounding variables, such as comorbid diagnoses, may have been present. Additionally, the cross sectional experimental design restricted our ability to measure the incidence of assessed variables across time. Therefore, the results of this study are not definitive, and must be interpreted with caution. It is recommended that other investigators attempt to replicate this study utilizing longitudinal methodologies in other distinct parent populations (i.e., men), and that these studies better assess potential confounding variables (i.e., comorbid diagnoses). Lastly, relevant to application, the results of this study provide preliminary support for the controlled development of cost-effective training programs for the examined population that is focused on helping them to achieve employment that is satisfying.

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References

- Abidin, RR. Parenting stress index. 3. Odessa, FL: Psychological Assessment Resources; 1995.
- Azrin NH, McMahon PT, Donohue B, Besalel VA, Lapinski KJ, Kogan ES, ... Galloway E. Behavior therapy for drug abuse: A controlled treatment outcome study. *Behaviour Research and Therapy*. 1994; 32:857–866. [PubMed: 7993330]
- Beimers D, Coulton CJ. Do employment and type of exit influence child maltreatment among families leaving Temporary Assistance for Needy Families? *Children and Youth Services Review*. 2011; 33:1112–1119.
- Berger L. Income, family structure, and child maltreatment risk. *Children and Youth Services Review*. 2004; 26:725–748.
- Cancian M, Yang M, Slack K. The effect of additional child support income on the risk of child maltreatment. *Social Service Review*. 2013; 87:417–437.
- Capone T, Brahen L, Condren R, Kordal N, Melchionda R, Peterson M. Retention and outcome in a narcotic antagonist treatment program. *Journal of Clinical Psychology*. 1986; 42:825–833. [PubMed: 3760220]
- Carey KB. Reliability and validity of the time-line follow-back interview among psychiatric outpatients: A preliminary report. *Psychology of Addictive Behaviors*. 1997; 11:26–33.
- Carlson BE, Williams LR, Shafer MS. Methamphetamine-involved parents in the child welfare system: Are they more challenging than other substance involved parents? *Journal of Public Child Welfare*. 2012; 6:280–295.
- Christmas A, Wodarski J, Smokowski P. Risk factors for physical child abuse: A practice theoretical paradigm. *Family Therapy*. 1996; 23:233–248.
- Coulton CJ, Korbin JE, Su M, Chow J. Community level factors and child maltreatment rates. *Child Development*. 1995; 66:1262–1276. [PubMed: 7555215]
- Cregan C, Kulik C, Salinger D. The effects of age and drug dependency on the emotional exhaustion and job satisfaction of adult streetworkers in Australia. *Archives of Sexual Behavior*. 2013; 42:851–861. [PubMed: 23319237]
- DeFulio A, Donlin WD, Wong CJ, Silverman K. Employment-based abstinence reinforcement as a maintenance intervention for the treatment of cocaine dependence: A randomized controlled trial. *Addiction*. 2009; 104:1530–1538. [PubMed: 19686522]

- De Graaf-Zijl M. Job satisfaction and contingent employment. *De Economist*. 2012; 160:197–218.
- Donohue B, Azrin NH, Bradshaw K, Van Hasselt VB, Cross CL, Urgelles J, Allen DN. A controlled evaluation of family behavior therapy in concurrent child neglect and drug abuse. *Journal of Consulting and Clinical Psychology*. 2014; 82:706–720. [PubMed: 24841866]
- Donohue B, Azrin NH, Strada MJ, Silver N, Teichner G, Murphy H. Psychometric evaluation of self- and collateral timeline follow-back reports of drug and alcohol use in a sample of drug-abusing and conduct-disordered adolescents and their parents. *Psychology of Addictive Behaviors*. 2004; 18:184–189. [PubMed: 15238061]
- Donohue B, Conway D, Beisecker B, Murphy H, Farley A, Waite M, Gugino K, Knatz D, Lopez-Frank C, Burns J, Madison S, Shorty C. Financial management and job social skills training components in a summer business institute: A controlled evaluation in high achieving predominately ethnic minority youth. *Behavior Modification*. 2005; 29:653–676. [PubMed: 15911687]
- Donohue B, Romero V, Hill H. Treatment of co-occurring child maltreatment and substance abuse. *Aggression and Violent Behavior: A Review Journal*. 2006; 11:626–640.
- Drake B, Pandey S. Understanding the relationship between neighborhood poverty and specific types of child maltreatment. *Child Abuse and Neglect*. 1996; 20:1003–1018. [PubMed: 8958452]
- Dufour S, Lavergne C, Larrivée M, Trocmé N. Who are these parents involved in child neglect? A differential analysis by parent gender and family structure. *Children and Youth Services Review*. 2008; 30:141–156.
- Eckenrode J, Smith E, McCarthy M, Dineen M. Income inequality and maltreatment in the United States. *Pediatrics*. 2014; 133:454–461. [PubMed: 24515511]
- Finkelhor D, Vanderminden J, Turner H, Hamby S, Shattuck A. Child maltreatment rates assessed in a national household survey of caregivers and youth. *Child Abuse & Neglect*. 2014; 38:1421–1435. [PubMed: 24953383]
- First, MB., Gibbon, M. The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) and the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II). In: Hilsenroth, MJ., Segal, DL., editors. *Comprehensive handbook of psychological assessment*, Vol. 2: Personality assessment. Hoboken, NJ, US: John Wiley & Sons Inc; 2004. p. 134-143.
- Gelles R. Poverty and violence towards children. *American Behavioral Scientist*. 1992; 35:258–274.
- Godley SH, Godley MD, Wright KL, Funk RR, Petry NM. Contingent reinforcement of personal goal activities for adolescents with substance use disorders during post-residential continuing care. *American Journal on Addictions*. 2008; 17:278–286. [PubMed: 18612882]
- Han W, Huang C, Williams M. The role of parental work schedule in CPS involvement. *Children and Youth Services Review*. 2013; 35:837–847.
- Hawthorne BJ. Job dissatisfaction: A drug related issue. *Drug Forum*. 1977; 6:187–195.
- Hermalin J, Husband SD, Platt JJ. Reducing costs of employee alcohol and drug abuse: Problem-solving and social skills training for relapse prevention. *Employee Assistance Quarterly*. 1990; 6:11–25.
- Hogue A, Dauber S, Dasaro C, Morgenstern J. Predictors of employment in substance-using male and female welfare recipients. *Journal of Substance Abuse Treatment*. 2010; 38:108–118. [PubMed: 20022202]
- Hser Y, Grella CE, Hsieh S, Anglin MD, Brown BS. Prior treatment experience related to process and outcomes in DATOS. *Drug and Alcohol Dependence*. 1999; 57:137–150. [PubMed: 10617098]
- Jones L. The prevalence and characteristics of substance abusers in a child protective service sample. *Journal of Social Work Practice in the Addictions*. 2008; 42:33–50.
- Kalichman, SC. Mandated reporting of suspected child abuse: Ethics, law, & policy. Washington, DC, US: American Psychological Association; 1993. Unreported cases of suspected child abuse; p. 97-112.
- Kissin WB, Tang T, Arieira CR, Claus RE, Orwin RG. Women's employment outcomes following gender-sensitive substance abuse treatment. *Journal of Drug Issues*. 2014; 45:1–14.
- Lee K. Effects of maternal employment and receiving welfare on family outcomes among low-income families. *Families in Society*. 2010; 91:178–185.

- Lewis-Esquerre JM, Colby SM, Tevyaw T, Eaton CA, Kahler CW, Monti PM. Validation of the timeline follow-back in the assessment of adolescent smoking. *Drug and Alcohol Dependence*. 2005; 79:33–43. [PubMed: 15943942]
- Liu M. Factors influencing low-income working mother's child care arrangements under different neighborhood and state policy contexts. *Dissertation Abstracts International Section A*. 2011; 72:2157.
- Lutzker JR. Behavioral treatment of child neglect. *Behavior Modification*. 1990; 14:301–315. [PubMed: 2198017]
- Magura S, Laudet A. Parental substance abuse and child maltreatment: Review and implications for intervention. *Children and Youth Services Review*. 1996; 18:193–220.
- Magura S, Staines GL. Introduction: New directions for vocational rehabilitation in substance user treatment: Rebuilding damaged lives. *Substance Use & Misuse*. 2004; 39:2157–2164. [PubMed: 15603000]
- Milner, J. *The Child Abuse Potential Inventory Manual*. DeKalb, IL: Psytec Inc; 1986.
- Milner, J. *An interpretive manual for the Child Abuse Potential Inventory*. Dekalb, IL: Psytec Inc; 1990.
- Milner, JS. Child physical abuse assessment: Perpetrator evaluation. In: Campbell, J., editor. *Violence by Batterers and Child Abusers*. 2. New York: Springer Publications; 2007. p. 45-70. Assessing dangerousness
- Owusu-Addo E, Cross R. The impact of conditional cash transfers on child health in low- and middle-income countries: A systematic review. *International Journal of Public Health*. 2014; 59:609–618. [PubMed: 24898173]
- Paul CC, Sanson-Fisher RR, Carey MM. Measuring psychosocial outcomes: Is the consumer or the professional the best judge? *European Journal of Cancer Care*. 2013; 22:281–288. [PubMed: 23431992]
- Peng Y, Mao C. The impact of person-job fit on job satisfaction: The mediator role of self-efficacy. *Social Indicators Research*. 2014; Advance online publication. doi: 10.1007/s11205-014-0659-x
- Petry N, Andrade L, Rash C, Cherniack M. Engaging in job-related activities is associated with reductions in employment problems and improvements in quality of life in substance abusing patients. *Psychology of Addictive Behaviors*. 2014; 28:268–275. [PubMed: 23586451]
- Platt JJ. Vocational rehabilitation of drug abusers. *Psychological Bulletin*. 1995; 117:416–433. [PubMed: 7777647]
- Platt JJ, Widman M, Lidz V, Rubenstein D, Thompson R. The case for support services in substance abuse treatment. *American Behavioral Scientist*. 1998; 41:1050–1062.
- Pollack H, Reuter P. Welfare receipt and substance-abuse treatment among low-income mothers: The impact of welfare reform. *American Journal of Public Health*. 2006; 96:2024–2031. [PubMed: 17018836]
- Roelen K. Sticks or carrots? Conditional cash transfers and their effect on child abuse and neglect: Researchers observe both benefits and harms of CCT programs. *Child Abuse and Neglect*. 2014; 38:372–382. [PubMed: 24594014]
- Silverman K, Svikis D, Wong CJ, Hampton J, Stitzer ML, Bigelow GE. A reinforcement-based Therapeutic Workplace for the treatment of drug abuse: Three-year abstinence outcomes. *Experimental and Clinical Psychopharmacology*. 2002; 10:228–240. [PubMed: 12233983]
- Slack K, Holl JL, Lee B, McDaniel M, Altenbernd L, Stevens A. Child protective intervention in the context of welfare reform: The effects of work and welfare on maltreatment reports. *Journal of Policy Analysis and Management*. 2003; 22:517–536.
- Slemp GR, Vella-Brodrick DA. The job crafting questionnaire: A new scale to measure the extent to which employees engage in job crafting. *International Journal of Wellbeing*. 2013; 3:126–146.
- Sobell, LC., Sobell, MB. Timeline follow-back: A technique for assessing self-reported alcohol consumption. In: Litten, RZ., Allen, JP., editors. *Measuring alcohol consumption: Psychosocial and biochemical methods*. Totowa, NJ, US: Humana Press; 1992. p. 41-72.
- Svikis DS, Keyser-Marcus L, Stitzer M, Rieckmann T, Safford L, Loeb P, ... Zweben J. Randomized multi-site trial of the Job Seekers' Workshop in patients with substance use disorders. *Drug and Alcohol Dependence*. 2012; 120:55–64. [PubMed: 21802222]

- Taylor S, Mudford OC, Phillips KJ. Training employment acquisition skills for adolescents with a substance abuse history. *Behavioral Interventions*. 2011; 26:282–308.
- U.S. Department of Health and Human Services, Administration on Children, Youth and Families, Children's Bureau. Child maltreatment 2009. 2010. [Available from <http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment>]
- Vartanian TP, McNamara JM. The Welfare Myth: Disentangling the Long-Term Effects of Poverty and Welfare Receipt for Young Single Mothers. *Journal of Sociology and Social Welfare*. 2004; 31:105–140.
- Webster JM, Staton-Tindall M, Dickson MF, Wilson JF, Leukefeld CG. Twelve-month employment intervention outcomes for drug-involved offenders. *The American Journal of Drug and Alcohol Abuse*. 2014; 40:200–205. [PubMed: 24405160]
- West SL. The utilization of vocational rehabilitation services in substance abuse treatment facilities in the U.S. *Journal of Vocational Rehabilitation*. 2008; 29:71–75.
- Whipple EE, Webster-Stratton C. The role of parental stress in physically abusive families. *Child Abuse and Neglect*. 1991; 15:279–291. [PubMed: 2043979]
- Wong CJ, Silverman K. Establishing and maintaining job skills and professional behaviors in chronically unemployed drug abusers. *Substance Use and Misuse*. 2007; 42:1127–1140. [PubMed: 17668329]

Table 1

Demographics of Mothers referred by Department of Family Services (n = 72)

Demographics	N or Mean	% of Sample or SD
Ethnicity:		
Caucasian	34	47%
African American	18	25%
Hispanic	8	11%
Other racial/minority group	12	17%
Mean Age (years)	29.04	8.07
Mean Income	118.75	332.35
Marital Status:		
Single	33	46%
Cohabitating	25	35%
Married	14	19%
Substance Diagnosis:		
Drug Abuse Only	28	39%
Drug Dependence Only	44	61%

Table 2

Association Between Child Maltreatment Potential and Employment Variables (n = 72)

Employment Variables	Child Abuse Potential	Controlling for Social Desirability
	<i>r</i>	<i>r</i> _{12.3}
Employment Satisfaction	-.52 **	-.39 **
# Hours Worked	-.33 *	-.30 *
Personal Income	-.23	-.19

*
 $p < .05$,**
 $p < .01$

Table 3

Change in R-squared from Three Hierarchical Multiple Regressions with Individual Employment Variables Predicting Child Maltreatment Potential (n = 72)

Predictor	Child Maltreatment Potential	
	R^2	β
<i>Employment Satisfaction:</i>		
Step 1: Control Variables ^a	.473 **	
Step 2: Employment Satisfaction	.053 *	-.286 *
<i>Hours Employed:</i>		
Step 1: Control Variables ^b	.514 **	
Step 2: Number of Hours Employed	.012	-.159
<i>Mother's Income:</i>		
Step 1: Control Variables ^c	.526 **	
Step 2: Mother's Income	.0003	-.024

^aControl variables included number hours employed, mother's income from employment, CAPI Lie scores, age, ethnicity (dummy coded), marital status (dummy coded), PSI Total Stress score, number of children living in the home, mother's education level, whether child was in special education/remedial classes, whether child was diagnosed with a physical disability, and whether child was diagnosed with developmental disability.

^bControl variables were the same as for the multiple regression for employment satisfaction, except number of hours employed was replaced with employment satisfaction.

^cControl variables were the same as for the multiple regression for number of hours employed, except mother's income from employment was replaced with number of hours employed.

* $p < .05$,

** $p < .01$.

Table 4

Association Between Substance Abuse and Employment Variables (n = 72)

Employment Variables	Positive UA Test	# Days Drugs Used
	<i>r</i>	<i>r</i>
Employment Satisfaction	-.32 *	-.28 *
# Hours Worked	.03	.03
Personal Income	-.07	.01

*
 $p < .05$,**
 $p < .01$

Table 5

Three Hierarchical Multiple Regressions with Individual Employment Variables Predicting Positive UA Test and Number of Days Drugs Were Used (n = 72)

Predictor	Positive UA Test		Number of Days Drugs Were Used	
	R^2	β	R^2	β
<i>Employment Satisfaction:</i>				
Step 1: Control Variables ^a	.203		.128	
Step 2: Employment Satisfaction	.093 **	.362 **	.094 **	-.363 **
<i>Hours Employed:</i>				
Step 1: Control Variables ^b	.222		.215	
Step 2: Number of Hours Employed	.074 *	-.403 *	.007	.126
<i>Mother's Income:</i>				
Step 1: Control Variables ^c	.281 *		.215	
Step 2: Mother's Income	.016	.186	.006	.118

^a Control variables included number of hours employed, mother's income from employment, age, ethnicity (dummy coded), marital status (dummy coded), PSI Total Stress score, number of children living in the home, number of adults in the home, mother's education level, whether child was in special education/remedial classes, whether child was diagnosed with a physical disability, and whether child was diagnosed with developmental disability.

^b Control variables were the same as for the multiple regression for employment satisfaction, except number of hours employed was replaced with employment satisfaction.

^c Control variables were the same as for the multiple regression for hours employed, except mother's income from employment was replaced with number of hours employed.

* $p < .05$,

** $p < .01$.