

# Exploring Out-of-Home Placement as a Moderator of Help-Seeking Behavior Among Adolescents Who Are High Risk

Yvonne A. Unrau  
Richard M. Grinnell, Jr.  
Western Michigan University

*Objective: This study investigated foster or group care placement as a predictor of help-seeking behavior among adolescents who were at high risk for physical and mental health problems. Method: Data from the 1985 to 1986 wave of the Adolescent Health Care Evaluation Study were used to compare three groups of adolescents: (a) 136 that had experienced placement, (b) 136 that were randomly selected from the larger sample, and (c) 136 matched to the placement group on key variables. Results: Adolescents who experienced placement had more physical and mental health problems compared to the random and matched groups. However, foster or group care placement was associated with help-seeking behavior only for two problems: depression and conduct disorder. Conclusion: Understanding the impact of placement on help-seeking behavior 20 years ago fills a critical gap in the current literature and provides an anchor point for examining foster care policy and programming today.*

**Keywords:** adolescents; foster care; group care; help seeking; mental health; physical health

Children placed in foster care are vulnerable to long-term physical and mental health problems owing to maltreatment and other trauma such as family separation (Trupin, Tarico, Low, Jemelka, & McClellan, 1993). Many youth “age out” of foster care without high school diplomas or prospects of employment leaving them unprepared for daily life as young adults (McMillen & Tucker, 1999). Although adults with childhood foster care experiences have been reported to fare less well on several social indicators such as educational achievement, community involvement, marital satisfaction, and occupational accomplishments, the reasons for their poor socialization may have as much to do with risks of poverty and family dysfunctions, as with risks associated with out-of-home

placement (Buehler, Orme, Post, & Patterson, 2000). Research studies have not yet teased out which aspects of the foster care or group care experience, if any, are associated with long-term health and well-being.

Child welfare agencies play a significant role in the provision of mental health services while children live in out-of-home care (Kellam, Branch, Brown, & Russell, 1981; Knitzer, 1982). When children exit from foster care they often become ineligible for the various services that were once associated with their placements and must then seek help from other systems, such as schools, churches, medical clinics, families, and friends (Porter & Lindberg, 2000). How well the foster care or group care experience prepares children—adolescents in particular—to seek professional help for their own needs is not yet fully known. Thus, the current study investigated whether a placement experience in either foster care or group care increased the likelihood of youth seeking professional help outside of the child welfare system for a variety of physical and mental health problems.

---

**Authors' Note:** This study utilized the Adolescent Health Care Evaluation Study data set (made accessible in 1990, machine-readable data files). These data were collected by F. Earls and are available through the archive of the Henry A. Murray Research Center of the Radcliffe Institute for Advanced Study, Harvard University, Cambridge, MA (producer and distributor). This study was funded by the Henry A. Murray Research Center at the Radcliffe Institute for Advanced Study, Harvard University. We would like to thank Michelle Conrady-Brown, MSW, for her assistance with the review of the literature. Correspondence concerning this article should be sent to Yvonne Unrau at the School of Social Work, Western Michigan University, Kalamazoo, MI 49008-5354; e-mail: yvonne.unrau@wmich.edu

Research on Social Work Practice, Vol. 15 No. 6, November 2005 516-530  
DOI: 10.1177/1049731505276302

## HELP-SEEKING LITERATURE

Broadly defined, help-seeking behaviors involve a request for assistance from informal supports (e.g.,

friends, family, and mentors) or formalized (institutional) services (e.g., professional, and clergy) for the purpose of resolving emotional, behavioral, or health problems (Srebnik, Cauce, & Baydar, 1996). Whether the requests for help are made by young persons in need, or by caregivers on their behalf, help-seeking behaviors are regarded as skills that can be learned. Indeed, previous studies have suggested that help-seeking behaviors begin to develop in early childhood (Barnett et al., 1990). Furthermore, the ways in which children seek help change with age, as does the type of assistance sought (Nelson-Le Gall, DeCooke, & Jones, 1989).

Help-seeking behaviors are specifically concerned with actions by individuals to look for and request assistance for their problems. A related concept that regularly appears in the help-seeking literature is service utilization that is typically measured by the number of individuals using or receiving particular services. It does not, however, account for individual's intention to use those services. Service utilization is a much broader concept than help-seeking behaviors because service utilization can be explained as much by court orders and child protection mandates as by self-initiated referrals. Regardless of which concept is used—service utilization or help seeking—research studies have consistently shown that adolescents are largely an underserved population, especially when it comes to their mental health needs.

In general, adolescents neither readily seek professional help for their problems nor are they considered high social service users. Studies have estimated that as many as one third (Wu et al., 2001) to one half (or more) of adolescents with mental health issues go unassisted (Cuffe, Waller, Cuccaro, Pumariega, & Garrison, 1995; Porter & Lindberg, 2000; Stiffman, Earls, Robins, & Jung, 1988; Zahner, Pawelkiewicz, DeFrancesco, & Adnopo, 1992). Reports of youth seeking professional help for emotional or behavioral problems range from a low of about one fourth (Barker & Adelman, 1994) to nearly one half (Offer, Howard, Schonert, & Ostrov, 1991; Saunders, Resnick, Hoberman, & Blum, 1994). These rates of help-seeking behaviors are low even when life-threatening problems such as suicidal ideation and attempts are at issue (Earls, 1989). When only foster care populations are considered, the rates of service utilization improve slightly (Bilaver, Jaudes, Koepke, & George, 1999; Garland, Landsverk, Hough, & Ellis-MacLeod, 1996). Scholars have also maintained that the health care response to foster care youth is less than adequate (Combs-Orme, Chernoff, & Kager, 1991).

## THEORETICAL FRAMEWORK

Andersen's (1995) behavioral model of health service use provides a useful framework for understanding the factors that influence individuals to seek out help. The core component of his model explains general health service use by three interrelated constructs that define the characteristics of service users. The first component is predisposing factors. The model suggests that service users possess a variety of predisposing factors that determine whether individuals seek out help for themselves. These include demographics (e.g., gender, race, and age), social structure (e.g., education, occupation, social networks, and culture), and health care beliefs (e.g., attitudes about health and health services). The second component covers enabling factors, which are factors assumed to directly facilitate an individual's help-seeking behaviors. Availability and accessibility to services (e.g., health insurance, and transportation), general know-how to gain use of services, and social relationships that assist with service use are included as enabling factors in Andersen's model. The third component is known as the level of need factor, which is the severity of a problem suffered by the individual. It influences the likelihood of seeking help for oneself. Self-perceived need and professionally evaluated need are distinguished in the model.

In sum, Andersen (1995) argued that all three factors—predisposing, enabling, and level of need—influence whether individuals set out to seek help for their problems. It should be noted that the current study does not test Andersen's model. Rather, his model is used as an organizing framework to examine the role that out-of-home placement plays in the help-seeking behaviors among a group of adolescents who are high risk in relation to their physical and mental health problems. Andersen's model provides a simple structure for describing complex relationships. Furthermore, it has been applied to foster care by others as a framework to critique health care utilization in the foster care system (Combs-Orme et al., 1991) and to investigate predictors of health service use by foster parents for children with psychiatric diagnoses (Zima, Bussing, Yang, & Belin, 2000).

There is a growing body of literature that investigates the factors predicting help-seeking behaviors among child and adolescent populations. This study's review of the literature was restricted to research studies that were conducted on North American samples that included youth between ages 13 and 19 years. Previous research

studies investigating help-seeking behaviors and service utilization were reviewed, as the current study's aim was to understand which factors predict help-seeking behaviors in adolescent populations. The following literature review is presented according to the theoretical framework previously mentioned.

### **Predisposing Factors**

Several factors predispose adolescents to seek help for emotional problems have been explored in the literature, including: gender, race and socioeconomic status, age, and attitude.

*Gender.* Gender clearly has a key role in whether adolescents get help for their emotional or behavioral problems. Females, for example, are more inclined to seek help than males (Barker & Adelman, 1994; Newell-Withrow, 1986; Saunders et al., 1994; Schonert-Reichl, & Muller, 1996). However, more sought out help may not be better because teenage girls are as likely to rely on available media (e.g., magazines, pamphlets, newspaper, books, and television), as they are on informal supports (e.g., friends, relatives, parents, and neighbors) or formal supports (e.g., teachers, and medical professionals) to gather health information (Newell-Withrow, 1986).

*Race and socioeconomic status.* Race, or ethnicity, also has consistently emerged as a predictor of adolescents who have sought out help; however, the relationship is more complicated. For example, Cuffe and his colleagues (1995) found that when race and gender were considered together, African American females were less likely to have received outpatient professional help compared to White males. Race and socioeconomic status (SES) also have shown a combined effect with non-White lower-SES youth being least likely to seek help for themselves compared to minority youth living in higher SES families or White youth. Another study found that compared to White foster children, African American children in out-of-home care were less likely to receive court orders for psychotherapy; however, the actual use of services ordered by the courts was not associated with race (Garland & Bessinger, 1997). In a sample of youth diagnosed with depressive disorders, African American youth were less likely to receive professional help when compared to all other racial groups. In addition, research studies that have investigated race have also shown that minority youth are more likely than their White counterparts to rely on informal sources of support such as

church leaders or other adult mentors to solve personal problems (Newell-Withrow, 1986; Windle, Miller-Tutzauer, Barnes, & Welte, 1991).

*Age.* The youths' age also has a role to play in their help-seeking behaviors, with older adolescents being more likely to seek help than younger teens (Chernoff, Combs-Orme, Risley-Curtiss, & Heisler, 1994; Garland & Bessinger, 1997; Nelson-Le Gall et al., 1989; Newell-Withrow, 1986; Schonert-Reichl & Muller, 1996). Moreover, as teens grow older they appear to "broaden their social network of helping sources" (Windle et al., 1991). This finding has also emerged in studies that specifically examined foster care populations (Blumberg, Landsverk, Ellis-MacLeod, Ganger, & Culver, 1996; Garland & Bessinger, 1997; Zima et al., 2000).

*Attitudes.* Adolescent's attitudes about health care—and about themselves as well—also predispose youth to seek help for their problems. However, unlike the demographic variables previously discussed, attitude is a client outcome that an out-of-home placement experience may be able to effect. Overall, studies have suggested that adolescents with more positive self-attitudes—or higher social competence—are more inclined to seek out help when needed (Barker & Adelman, 1994; Garland & Zigler, 1994). However, the relationship of attitude and help seeking is a complex one. For example, Schonert-Reichl and Muller (1996) determined that youth sought out help from different sources (i.e., professionals, friends, parents) depending on various dimensions of self-perception including their levels of self-worth, self-consciousness, and internal versus external locus of control.

### **Enabling Factors**

Enabling factors are primarily concerned with facilitating help-seeking behaviors or service utilization by increasing service access and availability. Three major enabling factors that have been explored in the literature are (a) service accessibility, (b) out-of-home placement, and (c) foster parent characteristics.

*Service accessibility.* Research studies from the Adolescent Health Care Study (AHCES) have shown that when health services are designed to reach out to adolescent populations, they not only attract a larger proportion of youth but also are more successful at addressing comprehensive health care needs than general service health

clinics (Earls, Robins, Stiffman, & Powell, 1989). On the other hand, enabling factors of service accessibility, financial constraints, and supportive relationships dropped out as significant predictors of adolescents seeking help in a regression model where gender and attitudes emerged as the strongest predictors (Barker & Adelman, 1994).

*Out-of-home placement.* Out-of-home placement (i.e., foster care or group care placements) is the primary variable of interest in the current study. Using Andersen's (1995) model as a lens for examining the literature, it was found that other studies that have investigated the relationship of out-of-home placement to either help seeking or service utilization have clearly viewed foster or group care placement as an enabling factor; that is, the research questions explored by others have focused on whether the placement experiences resulted in increased service use by youth in foster or group care. To that end, the literature suggests that with entry to foster or group care, youth can expect to receive more physical and mental health services—with a particular emphasis on mental health services (Bilaver et al., 1999; Chernoff et al., 1994). Furthermore, when youth present problems such as having been physically or sexually abused, or behavioral problems that have reached a clinical level, then service utilization may be even greater (Garland & Besinger, 1997).

*Characteristics of foster parents.* Zima and her colleagues (2000) investigated foster parents as help-seeking "brokers" for foster children with attention-deficit hyperactivity disorder (ADHD) and other psychiatric diagnoses. The monthly benefits received by caregivers were positively associated with foster parents seeking formal sources of help for children with ADHD. Foster parent education was positively associated with caregivers' receiving referrals to specialty services regardless of children's diagnoses. However, children with ADHD and longer stays in care received fewer referrals for specialty services suggesting that service availability was greater for newcomers to foster care, either because children with extended lengths of stay had exhausted all the available social services or they had less need for them over time.

### **Level-of-Need Factor**

Having a psychiatric diagnosis or a severe problem is generally associated with greater help-seeking behaviors and service utilization (Cohen & Hesselbart, 1993; Cohen, Kasen, Brook, & Struening, 1991; Cuffe et al.,

1995; Garland et al., 1996; Offer et al., 1991; Saunders et al., 1994; Wu et al., 2001). Comorbidity further increases the likelihood of service use (Zima et al., 2000), as does recognition of mental health problems by either teachers or parents (Zahner et al., 1992).

## **STUDY PURPOSE AND RESEARCH QUESTIONS**

Clearly, there is an assortment of factors that influence whether adolescents will seek help or use professional services to address their personal problems. As mentioned previously, the interest of the current study was to specifically examine the effect of foster or group care placement on help-seeking behaviors for a comprehensive set of physical and mental health problems, while controlling for many of the key predisposing, enabling, and level-of-need factors mentioned above. In addition, the current study investigated whether the placement experience was better explained as a predisposing factor or an enabling factor in Andersen's model. As a predisposing factor, the link between a youth's placement experience and his or her help-seeking behaviors would necessarily involved an observable client change, such as his or her developing a positive health care attitude or improving his or her social networks while in care. In contrast, when defined as an enabling factor, the placement experience is viewed as a means to providing service access and availability to children and youth during their stay in foster care. The distinction is an important one in that it can aid in understanding whether service use patterns are better explained by system bias versus help-seeking patterns of clients, including foster youth or their families (Garland & Besinger, 1997).

Given the general purpose of the current study, four more specific research questions were formulated where each one addressed a variety of physical and mental health problems that are common to adolescent populations.

1. Is an out-of-home placement experience associated with a greater likelihood of physical and mental health problems in a sample of adolescents who are high risk?
2. Is an out-of-home placement experience associated with a greater likelihood of help seeking for physical and mental health problems in a sample of adolescents who are high risk? In other words, is there a placement effect on adolescents seeking help?
- 2a. Where a placement effect is observed, is statistical significance maintained after predisposing, enabling, and level-of-need factors are controlled for?

- 2b. Where a placement effect is observed, is the influence of the placement experience better explained as a predisposing factor or an enabling factor according to Andersen's model of behavioral health use?

## METHOD

This section addresses the study's sampling frame, design, predictor variables, and criterion variables.

### Sampling Frame

The current study's sampling frame was the 2,051 adolescents who were high risk who completed two interviews as part of the National Adolescent Health Care Evaluation Study (AHCES). Initial interviews in the AHCES study took place between November 1984 to June 1985, and second interviews occurred 12 months later. These data were collected by F. Earls and are available through the archive of the Henry A. Murray Research Center of the Radcliffe Institute for Advanced Study, Harvard University, Cambridge, MA. Participants in the larger study were predominantly female (77%) and African American (70%). The majority (89%) had lived in one of 10 metropolitan cities (i.e., Boston, Chicago, Indianapolis, Jackson, New Haven, Dallas, Los Angeles, St. Louis, Buffalo, New Orleans) most of their lives. Research participants were recruited when they visited inner-city public health clinics that were a part of a large health care delivery study funded by the Robert Wood Johnson Foundation. As a convenience sample, the AHCES sample is not random and thus cannot be considered to represent adolescent populations.

### Design

Out of the 2,051 adolescents contained within the sampling frame, 408 were divided into three equal-sized groups (i.e., placement group, random group, matched group). This three-group comparative design was used by Buehler and her colleagues (2000).

*Placement group.* The first step was to form a placement group. It was created by selecting all of the youth that reported having experienced either a foster or group care placement ( $n = 136$ ). Of this group, 83 (61%) had experienced placement at some point before the first interview (i.e., prior to 1984 to 1985); however, the age of the youth when placed was not available for analysis. Of the group, 53 (39%) youth reported having experienced a

placement between the first and second interviews of the AHCES, which was the same period in which they were also asked about their help-seeking behaviors. The placement group represented youth from the inner city that were high risk and raised in families that had problems serious enough to result in the removal from their family homes.

*Random group.* The second step was to create a random group. It was generated by randomly selecting 136 youth that had not experienced a placement, unlike those adolescents in the placement group. This group represented the so-called population of inner-city youths that sought out help from public health clinics (i.e., the AHCES sampling frame). Compared to the two other sample groups used in the current study, the random group was considered to be at lesser risk for health and mental health problems.

*Matched group.* The third step was to create a matched group. It was created by selecting 136 youth who matched the placement group on six factors, which represented predisposing and enabling factors according to Andersen's (1995) model:

- Three predisposing variables—age, gender, race—were selected because each factor shapes help-seeking behaviors.
- Two enabling variables—enrollment in an educational program and common-law status—added control for other social structures or networks assumed to affect help-seeking behaviors (Porter & Lindberg, 2000).
- Another predisposing variable—mental illness of family members—provided a proxy measure of family dysfunction that was separate from the measure of a foster or group care placement experience.

The current study's design did not guarantee that the placement and matched groups were fully equated on the underlying constructs measured by the six matching variables. However, additional control of potential extraneous variance was assumed when comparing youths that had experienced placements from those that did not (Buehler et al., 2000). The matched group gives added value to the research design because it was constructed to be theoretically similar to the placement group but consisted of youth who had never experienced foster or group care placement. Thus, if the placement experiences were to have a consequential effect on help-seeking behaviors, then the expected result of the analysis was that the help-seeking behaviors of the matched group would be more similar to the random group (despite differences on matched variables), and both of these groups would be distinct from the placement group.

**TABLE 1: Matching Variables by Group**

Matching Variables	Groups			
	Random n = 136	Matched <sup>a</sup> n = 136	Placement n = 136	Total N = 408
Mean Age (SD)	15.9 (1.5)	16.2 (1.4)	16.1 (1.4)	16.1 (1.4)
Gender				
Male	27	18	18	21
Female	73	82	82	79
Race				
White	20	43	43	35 **
African American	70	48	47	55
Other minority	10	9	10	10
In-school or training program				
No	12	36	36	28 **
Yes	88	64	64	72
Ever married/lived common law				
No	93	85	85	88 *
Yes	7	15	15	12
Mental illness of family member <sup>b</sup>				
No	83	59	59	67 **
Yes	17	41	41	33

a. For 90% ( $n = 123$ ) of matches, each pair of cases shared the same response value on all six matching variables. In 10% of matches, the pairs matched exactly on five variables. Ten cases were matched on age within plus or minus 1 year and one case within plus or minus 2 years. In two other cases, youth reported as other minority were matched with two youth reporting Black as their race.

b. Defined as a parent or sibling having one or more of the following: saw doctor for mental problems; was hospitalized for mental problems; was diagnosed depressed; was diagnosed manic; attempted suicide.

\* $p < .05$ . \*\* $p < .001$ .

## Study Sample

The current study's final sample size was  $N = 408$  ( $n = 136$  for the placement group, 136 for the random group, 136 for matched group). Table 1 summarizes the characteristics of the three groups according to the six matching variables mentioned above. As expected, the placement and matched groups profiled similarly and were different from the random group. Moreover, the placement group and matched group represented youth who were higher risk when compared to the random group. Specifically, the placement and matched groups had 24% fewer youth in school or training programs, 24% more youth reporting a family member with mental health problems, and 8% more having married or entered common-law relationships before age 19. In addition, the placement and matched groups comprised 23% fewer African American youth when compared to the random group.

*Operationalization of physical and mental health problems.* All 14 health measures for the current study were taken from the second interview of the AHCES study. Seven physical health and seven mental health problems were created from interview questions that had asked youth whether they had experienced various symptoms or illnesses in the 12-month period prior to the interview. Each health variable was created at a dichotomous

level to accommodate the large variety of symptom categories to which youth could respond positively. Although this approach to measurement made the most of the secondary data set, it did reduce sensitivity. Moreover, we cannot assume that youth measured to have a particular health problem necessarily experienced the same symptoms or illnesses.

Physical health problems: Youth were considered to have had a particular physical health problem if they met the minimum the criteria as described for each of the following:

1. *Physical symptoms:* 0 = none, 1 = one or more of the following: pain in abdomen (excluding pain associated with menstruation); back pain, joint pain; pain in arms or legs (other than joints); headaches; chest pains; pain with urination; body jerking associated with fits, seizures or convulsions; fainting or passing out; unconsciousness (not associated with anesthesia, convulsions, amnesia or fainting); heart palpitations; dizziness; feeling a lump in throat (not associated with crying); missed regular activity because not feeling well; sudden loss in weight; early, late, or missed menstrual periods; excessive bleeding with menstruation; excessive pain with menstruation.
2. *Injuries and accidents requiring medical care:* 0 = none, 1 = one or more of the following injuries resulting from vehicular accident (someone else driving); vehicular accident (driving self); household accident or fall; sports accident; fight, brawl, or scuffle; beaten up; rape or attempt to force sex; being in the way or bystander; self-injury; other.
3. *Chronic illness:* 0 = none, 1 = one or more of the following: cancer, diseases of the heart and blood vessels, high blood pressure, chronic bronchitis, emphysema, sugar diabetes, kidney diseases, epilepsy, anemia, scoliosis, birth defects, deaf-

ness or serious hearing problems, blindness or serious vision problems, other problems.

4. *Asthma*: 0 = no, 1 = yes: self-report or noted in medical records.
5. *Birth control*: 0 = no, 1 = yes: either used birth control (condom, diaphragm, jelly and/or foam, sponge, pill, intrauterine device [IUD], withdrawal, or something else) or had sex without using birth control.
6. *Pregnancy*: 0 = no, 1 = yes: measured for females only (i.e., males who impregnated a female were not counted).
7. *Venereal disease*: 0 = no, 1 = one or more of the following: gonorrhea, syphilis, herpes, chlamydia, or AIDS.

Mental health problems: Youth were considered to have had a particular mental health problem if they met the minimum criteria as described for each of the following:

1. *Anxiety*: 0 = none, 1 = one or both of the following: Consider yourself a nervous person; had a spell and/or attack when all of a sudden you felt frightened, anxious, or very uneasy in situations when most people would not be afraid.
2. *Depressive symptoms*: 0 = less than three, 1 = three or more symptoms in the following nine categories): (a) lost appetite or lost as much as 10 pounds without trying or appetite increase; (b) sleep: trouble sleeping (too little or too much); (c) felt tired all the time; (d) talked or moved more slowly than usual or could not sit still or moving all the time; (e) lost interest in things usually enjoyed; (f) felt worthless, hopeless, or life was pointless; (g) trouble concentrating or feeling mixed up; (h) crying spells or wanting to stay away from people; (i) thought a lot about death, or felt like you wanted to die, or thought about committing suicide, or attempted suicide. Note: with the exception of the last two items, all symptoms were present for 2 weeks or more.
3. *Post-traumatic stress symptoms*: 0 = none, 1 = one or more of the following: nightmares about the upsetting experience, jumpy or easily startled, trouble sleeping, trouble concentrating, had much less feeling for people normally cared about or lost interest in activities normally enjoyed, felt ashamed of still being alive, avoided doing anything that would remind you of the upsetting event.
4. *Conduct problems*: 0 = none, 1 = one or more symptoms contained in the following 11 categories: (a) suspended from school, or expelled from school, or played hooky from school and/or training program, or been told at work that you were not doing what was expected, or fired from a job, or missed work when you were not ill and were expected to be at work; (b) taken anything that did not belong to you or stolen anything such as money from someone's purse or shoplifted something at a store; (c) lied or made up stories to get out of trouble or get someone else into trouble; (d) runaway overnight or longer from the places you were living; (e) been paid for have sex with someone; (f) physically fought with someone using a weapon, or hurt someone badly in a fight, or threatened anyone with a knife, or been so angry that you seriously tried to kill someone; (g) injured a small animal such as a cat or squirrel on purpose (exclude hunting, insects, mice, rats); (h) taken things from other people by purse snatching, holding them up, or threatening them; (i) purposefully started fires that you were not supposed to; (j) smashed, destroyed, or spoiled someone's property such as breaking windows, scratching up a car, painting on buildings or bridges; and (k) broken into a house or building.
5. *Alcohol or drug problems*: 0 = less than two, 1 = two or more of the following: family member has objected because you were drinking too much; felt as if you had to have a drink every day to keep going; needed to drink more than used to; missed school and/or work because of drinking; got in trouble because of drinking and driving; gotten into fights while drinking; in-

involved with police because of drinking; or (one or more of the following) needed larger amounts of drugs to get the same effect as before; felt sick with tremors, headaches, or irritability when stopped using the drug; use of drugs has caused problems with friends or school and/or work; experienced emotional problems from using any drugs.

6. *School problems*: 0 = none, 1 = one or more of the following: repeating a grade, needing special help, getting poor grades, playing hooky or missing days, not getting along with fellow students, not getting along with teachers, drug or alcohol problems at school, many sick days.
7. *Interpersonal problems*: 0 = none, 1 = in the last month felt upset with or let down either a good deal of the time or almost all of the time by one or more of the following: friends, parents, children, or siblings.

Operationalization of predictor variables: Three sets of predictor variables were examined in the current study. First, group status as defined by the three groups (i.e., placement, random, matched) was the key variable under investigation. The placement experience was measured by youth self-report in response to survey questions in the first AHCES interview that asked if they had ever lived in foster care or group care and survey questions in the second AHCES interview that asked if they had lived in foster care or group care since the first interview. Second, the six matching variables displayed in Table 1 formed a second set of predictors. Third, level of need, or severity of the problem, was measured by summing the number of symptoms reportedly affecting youth for each particular health problem area as previously defined.

Operationalization of criterion variables: Help-seeking behaviors were the criterion variables used in the current study, and 14 dichotomous help-seeking measures were created to correspond with each physical and mental health problem. Youth were counted as having sought help (0 = no, 1 = yes) for an identified problem if they either told someone at the public health clinic about it or asked for help with the specific problem from at least one of the following services: another clinic; private doctor; hospital emergency room; druggist or nurse; counselor, psychologist, or social worker; clergy; teacher or tutor; hospital; or some other service. This measure of help seeking assessed whether youth took action to inform a professional about a problem they had, did not account for whether the requested services were actually received, and offers no appraisal of the suitability or quality of any services. Informing someone else about a problem is an important first step toward getting help (Earls et al., 1989).

## ANALYSIS AND FINDINGS

The results of the current study are presented according to the research questions previously stated.

### Research Question 1: Physical and Mental Health Problems by Group Status

The first research question addressed whether youth in the placement group were more likely to suffer from particular physical and mental health problems, as compared to youth in the random and matched groups. Fourteen chi-square tests were used to assess whether there was a bivariate association between group status (i.e.,

placement, matched, random) and presence (no, yes) for each one of the seven physical and seven mental health problems. Where statistical significance was achieved at the .05 level or better, pairwise comparisons were made to test for associations between the placement and matched groups (McNemar), and the placement and random groups ( $\chi^2$ ).

*Physical health problems.* The placement group showed a higher proportion of youth having problems for all seven physical health areas. However, the difference between groups was statistically significant in only four areas: physical symptoms ( $\chi^2 = 10.2$ ,  $df = 2$ ,  $p < .01$ ), injuries and accidents ( $\chi^2 = 6.0$ ,  $df = 2$ ,  $p < .05$ ), chronic illness ( $\chi^2 = 6.3$ ,  $df = 2$ ,  $p < .05$ ), and pregnancy ( $\chi^2 = 7.8$ ,  $df = 2$ ,  $p < .05$ ). Figure 1 displays these statistically significant associations by displaying the percentage of youth in each group that was assessed to have the particular problem. Because group status was not associated with problems of asthma, birth control needs, or venereal disease, only the total group ( $N = 408$ ) percentages are reported, which were 10%, 59%, and 6%, respectively.

Because our main interest was to determine whether adolescents in the placement group were most likely of all to experience physical health problems, we took the analysis one step further to examine pairwise comparisons between the placement group and each of the two comparison groups. These  $2 \times 2$  comparisons revealed that the placement group was significantly more likely to have chronic illness when compared to the matched group, and also more likely to have experienced physical symptoms, injuries, and pregnancy when compared to the random group (see Figure 1). However, the strengths of these associations were relatively small with phi coefficients ranging from .14 to .19.

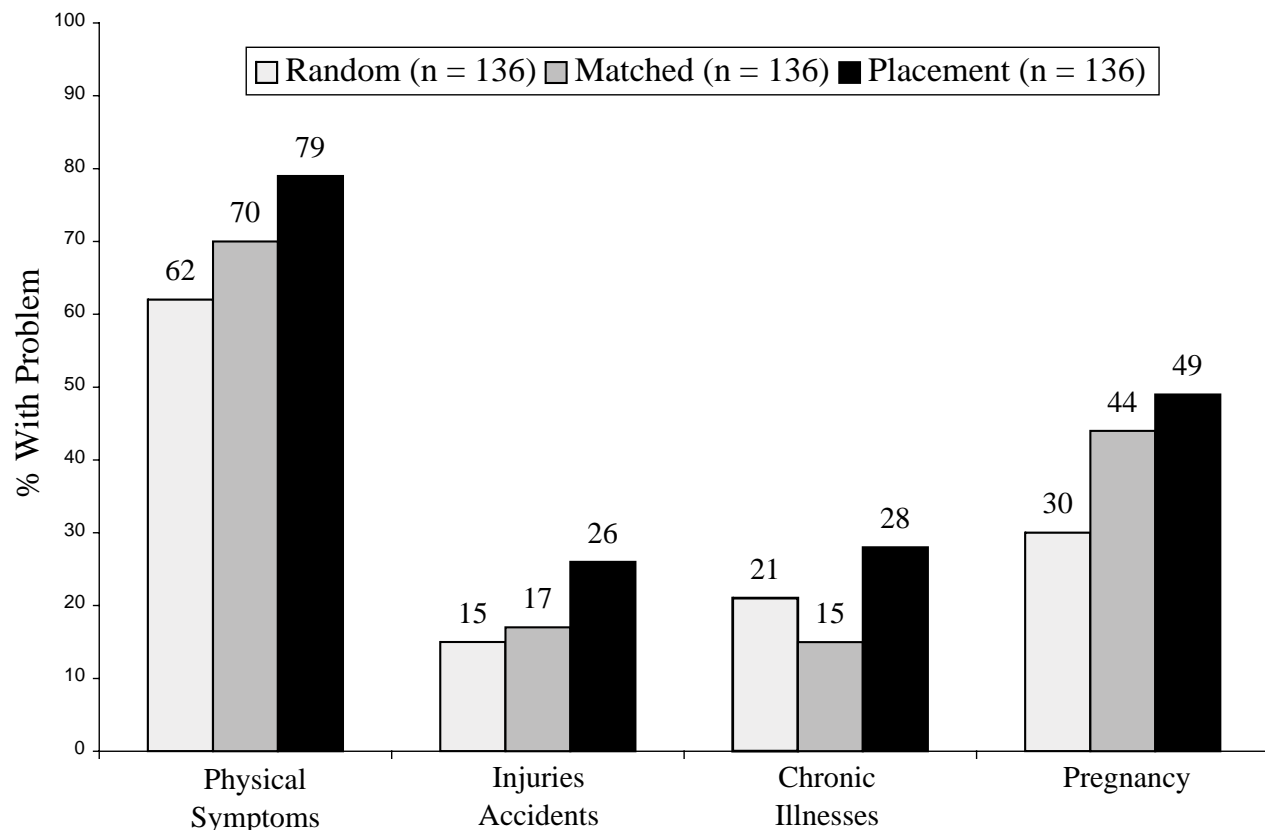
*Mental health problems.* Of the seven mental health problems examined, six were associated with group status: anxiety ( $\chi^2 = 14.7$ ,  $df = 2$ ,  $p < .001$ ), depression ( $\chi^2 = 25.1$ ,  $df = 2$ ,  $p < .001$ ), post-traumatic stress symptoms (PTS symptoms;  $\chi^2 = 14.2$ ,  $df = 2$ ,  $p < .001$ ), conduct problems ( $\chi^2 = 9.7$ ,  $df = 2$ ,  $p < .01$ ), alcohol and drugs ( $\chi^2 = 9.6$ ,  $df = 2$ ,  $p < .01$ ), and school problems ( $\chi^2 = 15.2$ ,  $df = 2$ ,  $p < .001$ ). About one half (52%) of the total sample ( $N = 408$ ) reported some level of interpersonal problems with no statistically significant differences observed between the three groups. The six statistically significant associations presented in Figure 2 show that the placement group had the highest proportion of youth experiencing all of the mental health problems presented.

Once again, we wanted to determine whether adolescents in the placement group were most likely of all to experience mental health problems and so examined pairwise comparisons between the placement group and each of the two comparison groups. These  $2 \times 2$  comparisons revealed that the placement group was significantly more likely than the matched and the random groups on all the mental health problems shown in Figure 2, except for anxiety that was not significantly different from the matched group at the .05 level. The strength of the associations between the placement and matched groups were small with phi coefficients ranging from .13 to .18. However, some of the associations between the placement and random groups were stronger with phi coefficients as follows: .17 (alcohol), .19 (conduct), .22 (PTS symptoms), .23 (anxiety), .26 (school), and .30 (depression). The magnitude of these effects are reflected in the size of the difference between bar levels shown for each group in Figure 2.

#### **Research Question 2: Help-Seeking Behaviors by Group Status**

To control for the presence of problems, the sample for the second research question was reduced to include only the subsets of youth that were rated positively for each one of the 14 physical and mental health problems examined. This restricted sample resulted in a variable number of adolescents across the three study groups, which upset the balance of sample pairs between the matched and placement groups. Consequently, the matched group was eliminated from further analysis. Among remaining youth—all of whom had experienced the problems being examined—it was hypothesized that those with a placement experience (i.e., placement group) would be more likely to seek professional help when compared to youth without a placement experience (i.e., random group). Chi-square tests of association were used to assess whether there was an association between group status (i.e., placement, no placement) and help-seeking behaviors (no, yes) for all 14 physical and mental health problems.

*Help-seeking for physical health problems.* Although the placement group was more likely to have medical needs in some problem areas (see Figure 1), they were not more likely to seek help for any of the physical health problems measured. The percentage of youth that were assessed to have an identified problem and to seek help for it are presented from low to high as follows: birth



**Figure 1: Percentage of Youth With Physical Health Problems by Study Group**  
NOTE: Excludes male youth.

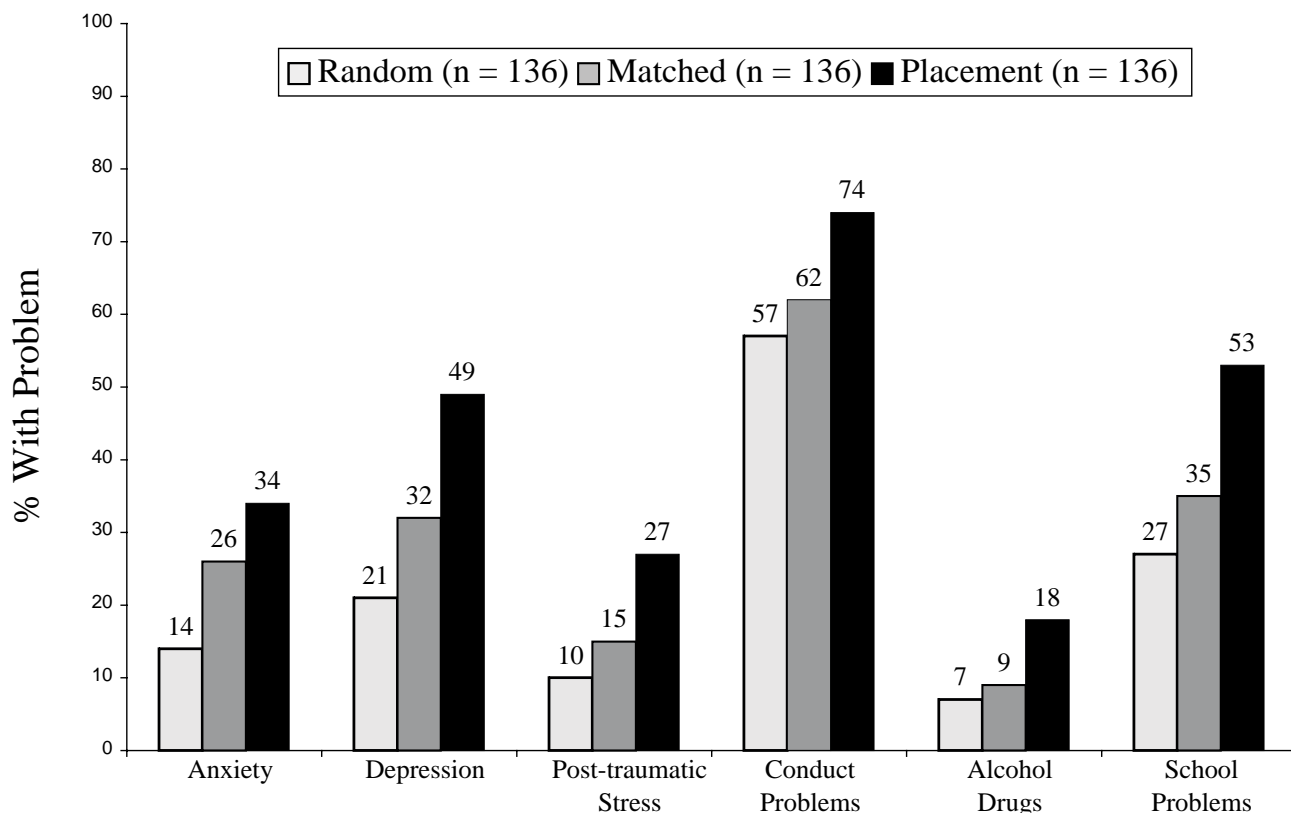
control needs (39%), physical symptoms (61%), asthma (79%), chronic illness (81%), injuries and accidents (93%), venereal disease (93%), and pregnancy (94%).

*Help-seeking for mental health problems.* Although youth in the placement group were more likely to suffer from six of the mental health problems, they were more likely to seek help in only four areas: depression ( $\chi^2 = 10.1, df = 1, p < .001$ ), PTS symptoms ( $\chi^2 = 4.4, df = 1, p < .05$ ), conduct problems ( $\chi^2 = 8.6, df = 1, p < .01$ ), and interpersonal problems ( $\chi^2 = 10.5, df = 1, p < .001$ ). The phi coefficients, which give an indication of the strength of association for these analyses, were .33, .31, .22, and .27, respectively. The four statistically significant relationships are displayed in Figure 3, which shows that the placement group reported the highest percentage of help seekers for each problem featured. Noteworthy is the finding that group status was associated with help seeking for interpersonal problems despite the fact that all groups showed about one half of youth experiencing such difficulties.

On the other hand, group status (placement, no placement) was not associated with help seeking for the three remaining mental health problems. The percentages of the samples that sought help for them were anxiety—34%, alcohol or drug issues—40%, and school problems—50%.

#### **Research Question 2a: Testing the Placement Effect While Controlling for Other Predictors**

The third study question aimed to find out whether the relationship between group status and help-seeking behaviors remained after other predisposing, enabling, and level-of-need factors were controlled for in the analysis. Logistic regression analyses were used to assess the value of the demographic variables, level of need, and group status (placement, no placement) in predicting whether youth engaged in help-seeking behaviors (no = 0, yes = 1) for each problem area featured in Figure 3. A total of eight independent variables were entered in three blocks using the following order: six demographic



**Figure 2: Percentage of Youth With Mental Health Problems by Study Group**  
NOTE: Excludes youth not enrolled in school or educational training program.

variables listed in Table 1, level of need for the particular problem area, and placement group status (i.e., no placement, placement).

Table 2 displays the results of four separate logistic regressions and shows that for two of the four mental health problems examined, placement experience emerged as a significant predictor of help-seeking behaviors. More specifically, for depression and conduct problems, the odds of youth seeking help in the no-placement or random group were 62% and 68% (respectively) less likely when compared to youth in the placement group. In other words, youth that had experienced placement were more likely to seek help for problems related to depression and conduct problems. For the subsample of youth with depressive symptoms, belonging to a minority racial group and having entered marriage or a common-law relationship by age 19 years also emerged as predictors. In both instances, these factors decreased the odds of seeking professional help for problems of depression. For conduct and interpersonal problems, level of need (or severity of the problem) also emerged as significant predictors (see Table 2). In both instances, the odds of

seeking help for either conduct or interpersonal problems increased threefold when youth had two or more symptoms, as compared to youth that had only one symptom.

On the other hand, placement experience did not emerge as a predictor of help-seeking behavior for interpersonal problems. As mentioned above, the findings in Table 2 show that severity of need was related to help seeking for interpersonal problems. Because the regression model for predicting help-seeking behavior related to PTS symptoms was a poor fit to the data, it did not add to our understanding of placement experience as a predictor for such problems. The poor model fit was likely related to the small sample size, which was a consequence of few adolescents in the sample reporting PTS symptoms.

#### **Research Question 2b: Placement as a Predisposing Versus Enabling Factor**

The fourth and final research question brings attention back to Andersen's (1995) model of health use and

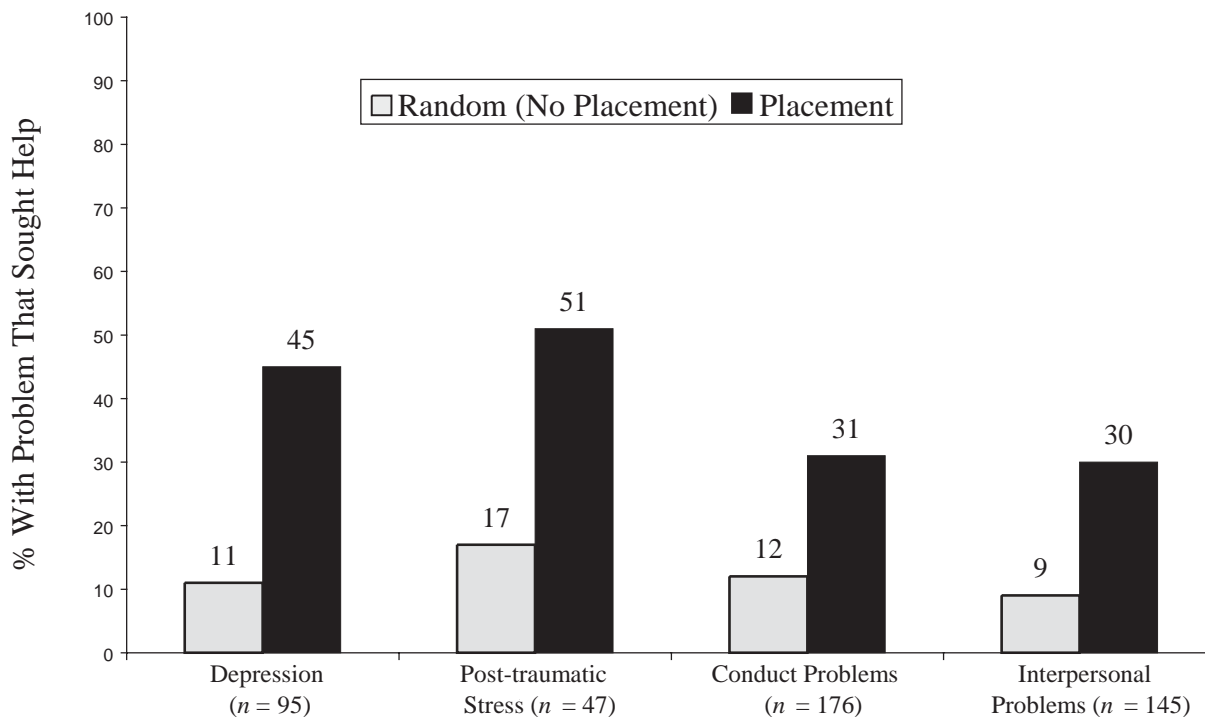


Figure 3: Percentage of Youth With Mental Health Problems Who Sought Help by Study Group

explores whether the placement effects observed in Research Question 2a were better explained as a predisposing factor or as an enabling factor. In other words, what role did the placement experience have in moderating help-seeking behavior? To answer this question only the placement group ( $n = 136$ ) was used, which was then further divided into subgroups: (a) the 53 youth that experienced a placement during the same 12-month period in which they sought out help (concurrent subgroup) and (b) the 83 youth whose placement experience had ended before they sought help from the clinic for a health problem (prior subgroup).

Chi-square tests were used to explore the association of the timing of placement (i.e., prior to help-seeking period vs. concurrent with help-seeking period) with depression and conduct problems, which were the two mental health problems analyzed in Research Question 2a where placement emerged as a predictor of help-seeking behavior (see Table 2).

Support for the idea of placement as an enabling factor for seeking out help would be substantiated if a higher proportion of help seeking occurred among those youths who experienced placement during the same time that they were seeking help (i.e., the concurrent subgroup).

The logic was that placement in either foster or group care would have provided youth with access to more services, as well as supportive adult networks that might facilitate use of available community services. If the opposite finding resulted (i.e., a higher proportion of help seekers appeared among youth in the prior subgroup) or no differences were observed between the subgroups, then support for placement as a predisposing factor would be present. In this instance, help-seeking behaviors would have occurred after exit from foster care or group care, suggesting that the placement experience created a lasting change that increased the propensity of youth to seek help after their exit from out-of-home care. Applying such logic, the results (reported in Table 3) suggest that placement may have acted as a predisposing factor for youth with depression and an enabling factor for youth with conduct problems.

#### DISCUSSION AND APPLICATION TO SOCIAL WORK PRACTICE

The findings of the current study are consistent with other studies that have reported that children who

**TABLE 2: Final Step of Logistic Regression: Youths' Help-Seeking Behaviors for Different Mental Health Problems**

	Depression (n = 95)			Post-Traumatic Stress Symptoms (n = 47) <sup>a</sup>			Conduct Problems (n = 176)			Interpersonal Problems (n = 145)		
	Odds Ratio	Lower	Upper	Odds Ratio	Lower	Upper	Odds Ratio	Lower	Upper	Odds Ratio	Lower	Upper
Demographic												
Age (years)	1.12	.76	1.64				.80	.60	1.06	.81	.56	1.16
Female	3.31	.69	15.67				.90	.37	2.16	.34	.10	1.09
Minority	.25*	.08	.74				.76	.33	1.78	.65	.23	1.80
In school	1.26	.38	4.21				1.04	.38	2.84	.61	.19	2.02
Family mental illness	.89	.32	2.48				.55	.23	1.29	2.21	.84	5.78
Married	.06*	.01	.55				.58	.14	2.39	1.04	.24	4.44
Measure of need <sup>b</sup>	1.07	.82	1.41	.96	.28	3.27	2.80*	1.19	6.55	2.78*	1.02	7.61
Placement group												
No placement	.15*	.03	.62	.18	.03	.96	.27*	.11	.68	.35	.12	1.04
<i>Final Model</i>	$\chi^2$	df	p	$\chi^2$	df	p	$\chi^2$	df	p	$\chi^2$	df	p
Improvement	27.5	8	.001	5.2	2	.074	23.7	8	.01	23.7	8	.004
Goodness of Fit	3.7	7	.812	.5	2	.769	9.3	8	.317	8.9	8	.348
<i>Pseudo R<sup>2</sup></i>	Cox & Snell			Cox & Snell			Cox & Snell			Cox & Snell		
Block 1 (demographics)	.17			.04			.04			.10		
Block 2 (plus need)	.18			.01			.08			.13		
Block 3 (plus group)	.25			.10			.12			.15		

a. Demographic variables were omitted from this analysis because of the small sample size (few adolescents reporting post-traumatic stress symptoms).

b. Definitions for level of need variables: depression: a continuous variable created by summing the total number of depression categories affecting youth (1 to 9); post-traumatic stress: a dichotomous variable 0 = three or fewer symptoms, 1 = four or more symptoms; conduct problems: a dichotomous variable 0 = symptoms in only one category, 1 = symptoms in two or more categories; interpersonal problems: a dichotomous variable 0 = problem in one relationship, 1 = problem in two or more relationships.

**TABLE 3: Association of Mental Health Problems and Youths' Help Seeking by Placement Subgroup**

		<i>Placement Subgroups</i>		<i>p<sup>a</sup></i> <i>(two-tailed)</i>
		<i>Prior</i>	<i>Concurrent</i>	
		<i>% (n)</i>	<i>% (n)</i>	
Depression	% had problem	43 (83)	56 (53)	.08
	% sought help	42 (36)	48 (31)	<i>ns</i>
Conduct problems	% had problem	72 (83)	77 (53)	<i>ns</i>
	% sought help	19 (72)	42 (48)	.01

a. Based on  $2 \times 2$  chi-square tests of association.

experience out-of-home placements are more likely to suffer health problems, especially mental health problems. Bilaver and her colleagues (1999) reported this to be the case when comparing foster children to other poor children. In the current study, inner-city youth who were considered to be at high risk for health concerns were more likely to be physically ill with either somatic or chronic illnesses, and were also more likely to report accident-related injuries and pregnancy if they had experienced an out-of-home placement. The same was true for mental health problems as the group with an out-of-home placement experience had the highest proportion of youth reporting problems with anxiety, depression, PTSD symptoms, conduct problems, alcohol or drug-related concerns, and school problems.

Because the current study was based on a secondary analysis of an existing data set, the findings of service underutilization for health care problems, it is not surprising, were consistent with similar findings that were produced by the original sample that used the larger data set (e.g., Earls et al., 1989; Stiffman et al., 1988). In the current study, help seeking for medical conditions involving asthma or other chronic illness, venereal disease, or pregnancy did not raise concern because the majority of youth reporting such problems had managed to get professional help. Even the finding that nearly two thirds of youth reporting physical symptoms had sought medical attention for their complaints did not stir unease because a broad array of somatic symptoms were included in the definition. However, the finding that nearly 4 in 10 youth who were sexually active had sought professional help for their birth control needs was alarming, particularly because more than one third of females in the sample had reported having ever been pregnant.

In contrast to help seeking for physical health problems, the underutilization of services for mental health problems was of much greater concern. Less than one half of the youths who reported mental health issues in the

current study had sought out professional help. This finding is consistent with other studies that have identified adolescents as low-service users of mental health professionals (Cuffe et al., 1995; Wu et al., 2001; Zahner et al., 1992).

Of course, the main interest of the current study was to investigate whether an out-of-home placement experience increased the likelihood of help seeking for various health problems among youth in the inner city. The literature suggests that with placement in foster care, children receive a greater number of mental health services (Bilaver et al., 1999; Garland & Besinger, 1997). Of the 14 health problems examined, in only two instances (i.e., depression, conduct problems) did a placement experience emerge as a clear predictor of adolescents seeking help. In both instances, youth who had experienced an out-of-home placement were far more likely to seek professional help for either depression or conduct problems.

Knowing that an out-of-home placement experience may be beneficial to youth who suffer from depression or conduct problems provides a starting point for further investigating how the out-of-home care experience can contribute to help-seeking skills of youth in care. Furthermore, depression was the only health problem area where race also emerged as a predictor of help-seeking behaviors. The finding that youth of color were less likely to seek professional help for problems of depression may be explained partly by the preference that minority youth have to seek help from informal sources (Newell-Withrow, 1986; Windle et al., 1991). The interplay of race (and ethnicity) and foster care intervention deserves priority in future research investigations because children of color are overrepresented in the foster care system.

The current study's findings support the idea that foster or group care placement facilitates help-seeking behaviors among youth from the inner city, particularly when youth are known to have conduct problems. Moreover, the placement experience may have a differential effect depending on which problem is at issue for an individual. In keeping with Andersen's model of behavioral health use, it seems that a placement played a role in facilitating opportunities and access to available services, particularly for youth with conduct problems. Which particular aspects of the placement experience are responsible for promoting help-seeking behaviors is a question for future research. However, increased use of mental health services by children while in foster care may offer some explanation (Bilaver et al., 1999; Hoberman, 1992). On the other hand, the idea that out-of-home placement somehow predisposed youth to seeking help for their problems by creating better awareness, understanding,

or attitudes about any health problems they were experiencing did not bear out.

## CONCLUSIONS

Given that more than one half of all foster children older than age 5 years stay in foster care for 1 year or more (Perez, O'Neil, & Gesiriech, 2004), it is worth asking questions about the specific services provided to foster children, as well as individual benefit to children that those services promise. Furthermore, the experience of foster care is characterized by minimal involvement of birth parents, multiple foster home placements, and caseworker changes (Simms, Freundlich, Battistelli, & Kaufman, 1999). These conditions have led to criticisms that the foster care system seriously fails to adequately monitor or coordinate children's health and mental health care needs (Combs-Orme et al., 1991; Smith & Donovan, 2003). Although change at the system level is clearly needed, it will not happen soon enough to benefit the growing number of children that are presently in the care of the system. In the mean time, more must be done with foster care programming and practice at the front-line level—including caseworkers and foster parents. For example, providing training to line-level caseworkers and foster parents to teach foster youth skills to navigate health services and to develop positive attitudes toward seeking help may go a long way to improving self-sufficiency that may have lasting effects into adulthood.

The conclusion of the current study that a foster or group care placement increases help-seeking behaviors for conduct problems among adolescents from the inner city is limited by the current study's parameters. For instance, in the current study the type of placement was not described beyond the labels of foster care and group care, the timing of placement in youths' lives was not identified, and the number of placement experiences for each youth was unknown. Selection bias of the sample also limited the generalization of the findings because the sample comprised youth from the inner city who had visited a public health clinic to address health problems. As such, the conclusions of the current study have more relevance for youth who experienced foster care and were inclined to seek help. The foster care placement may have served to build help-seeking skills for youth who already possessed some level of self-sufficiency prior to placement. The placement effect may not apply to youth who are reluctant to seek help while in care.

Since the time that AHCES data were collected in the mid-1980s, approximately nine million children across

the United States have lived in foster care. Yet the foster care literature does not provide adequate explanation of how foster care—as a social resource to children in need of protective custody—mediates the trajectory of social adjustment from childhood to adolescence. Scholars have challenged that foster care is a service in need of theoretical and practical articulation (Martin, 2000).

Because the data for the current study were collected in the mid-1980s, it is not known whether the findings would hold today. The past 20 years have involved considerable reform in health care, welfare, and foster care (Simms et al., 1999). Furthermore, the 1990s showed a general decline in health risks among adolescents, except for Hispanic youth whose health risks have increased (Bogges, Lindberg, & Porter, 2000). Understanding the role of present-day foster care in assisting youth generally, and youth of color specifically, to seek help for long-term physical and mental health issues is critical if the system hopes to provide adolescents with life skills aimed at benefiting long-term health and well-being.

## REFERENCES

- Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36, 1-10.
- Barker, L., & Adelman, H. (1994). Mental health and help-seeking among ethnic minority adolescents. *Journal of Adolescence*, 17, 251-263.
- Barnett, M., Sinisi, C., Jaet, B., Bealer, R., Rodell, P., & Saunders, L. (1990). Perceived gender differences in children's help-seeking. *Journal of Genetic Psychology*, 151, 451-460.
- Bilaver, L. A., Jaudes, P. K., Koepke, D., & George, R. M. (1999). The health of children in foster care. *Social Service Review*, 73, 401-417.
- Blumberg, E., Landsverk, J. E., Ellis-MacLeod, E., Ganger, W., & Culver, S. (1996). Use of the public mental health system by children in foster care: Client characteristics and service use patterns. *Journal of Mental Health Administration*, 23, 389-405.
- Bogges, S., Lindberg, L. D., & Porter, L. (2000). *Changes in risk-taking among high school students, 1991-1997: Evidence from the Youth Risk Behavior Survey*. Washington, DC: Urban Institute.
- Buehler, C., Orme, J. G., Post, J., & Patterson, D. A. (2000). The long-term correlates of family foster care. *Children and Youth Services Review*, 22, 595-625.
- Chernoff, R., Combs-Orme, T., Risley-Curtiss, C., & Heisler, A. (1994). Assessing the health status of children entering foster care. *Pediatrics*, 93, 594-601.
- Cohen, P., & Hesselbart, C. (1993). Demographic factors in the use of children's mental health services. *American Journal of Public Health*, 83, 49-52.
- Cohen, P., Kasen, S., Brook, J., & Struening, E. (1991). Diagnostic predictors of treatment patterns in a cohort of adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30, 989-993.

- Combs-Orme, T., Chernoff, V., & Karger, R. (1991). Utilization of health care by foster children: Application of a theoretical model. *Children and Youth Services Review, 11*, 113-129.
- Cuffe, S. P., Waller, J. L., Cuccaro, M. L., Pumariega, A. J., & Garrison, C. Z. (1995). Race and gender differences in the treatment of psychiatric disorders in young adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 1536-1543.
- Earls, F. (1989). Studying adolescent suicide ideation and behavior in primary care settings. *Suicide and Life-Threatening Behavior, 19*, 99-107.
- Earls, F., Robins, L. N., Stiffman, A. R., & Powell, J. (1989). Comprehensive health care for high-risk adolescents: An evaluation study. *American Journal of Public Health, 79*, 999-1005.
- Garland, A., & Zigler, E. (1994). Psychological correlates of help-seeking attitudes among children and adolescents. *American Journal of Orthopsychiatry, 64*, 586-593.
- Garland, A. F., & Besinger, B. A. (1997). Racial/ethnic differences in court referred pathways to mental health services for children in foster care. *Children and Youth Services Review, 19*, 651-666.
- Garland, A. F., Landsverk, J. L., Hough, R. L., & Ellis-MacLeod, E. (1996). Type of maltreatment as a predictor of mental health service use for children in foster care. *Child Abuse and Neglect, 20*, 675-688.
- Hoberman, H. M. (1992). Ethnic minority status and adolescent mental health services utilization. *Journal of Mental Health Administration, 19*, 246-267.
- Kellam, S., Branch, J., Brown, C., & Russell, G. (1981). Why teenagers come for treatment. *Journal of the American Academy of Child and Adolescent Psychiatry, 20*, 477-495.
- Knitzer, J. (1982). *Unclaimed children: The failure of public responsibility to children and adolescents in need of mental health services*. Washington, DC: Children's Defense Fund.
- Martin, J. A. (2000). *Foster family care: Theory and practice*. Boston: Allyn & Bacon.
- McMillen, J., & Tucker, C. (1999). The status of older adolescents at exit from out-of-home care. *Child Welfare, 78*, 339-360.
- Nelson-Le Gall, S., DeCooke, P., & Jones, E. (1989). Children's self-perceptions of competence and help seeking. *Journal of Genetic Psychology, 150*, 457-459.
- Newell-Withrow, C. (1986). Identifying health-seeking behaviors: A study of adolescents. *Adolescence, 21*, 641-658.
- Offer, D., Howard, K., Schonert, K., & Ostrov, E. (1991). To whom do adolescents turn for help? Differences between disturbed and nondisturbed adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*, 623-630.
- Perez, A., O'Neil, K., & Gesiriech, S. (2004). *Demographics of children in foster care*. Washington, DC: Pew Commission on Children in Foster Care. Available at <http://pewfostercare.org/research/docs/Demographics0903.pdf>
- Porter, L., & Lindberg, L. D. (2000). *Reaching out to multiple risk adolescents*. Washington, DC: Urban Institute.
- Saunders, S., Resnick, M., Hoberman, H., & Blum, R. (1994). Formal help-seeking behavior of adolescents identifying themselves as having mental health problems. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*, 718-728.
- Schonert-Reichl, K. A., & Muller, J. R. (1996). Correlates of help-seeking in adolescence. *Journal of Youth and Adolescence, 25*, 705-731.
- Simms, M. D., Freundlich, M., Battistelli, E. S., & Kaufman, N. D. (1999). Delivering health and mental health care services to children in family foster care after welfare and health care reform. *Child Welfare, 78*, 166-183.
- Smith, B. D., & Donovan, S. E. F. (2003). Child welfare practice in organizational and institutional context. *Social Service Review, 77*, 541-563.
- Srebnik, D. R., Cauce, A. M., & Baydar, N. (1996). Help-seeking pathways for children and adolescents. *Journal of Emotional and Behavioral Disorders, 4*, 210-220.
- Stiffman, A. R., Earls, F., Robins, L. N., & Jung, K. G. (1988). Problems and help seeking in high-risk adolescent patients of health clinics. *Journal of Adolescent Health Care, 9*, 305-309.
- Trupin, E., Tarico, V., Low, B., Jemelka, R., & McClellan, J. (1993). Children on child protective service caseloads: Prevalence and nature of serious emotional disturbance. *Child Abuse and Neglect, 17*, 345-355.
- Windle, M., Miller-Tutzauer, C., Barnes, G. M., & Welte, J. (1991). Adolescent perceptions of help-seeking resources for substance abuse. *Child Development, 62*, 179-189.
- Wu, P., Hoven, C. W., Cohen, P., Liu, X., Moore, R. E., Tiet, Q., et al. (2001). Factors associated with use of mental health services for depression by children and adolescents. *Psychiatric Services, 52*, 189-195.
- Zahner, G., Pawelkiewicz, W., DeFrancesco, J., & Adnopoz, J. (1992). Children's mental health service needs and utilization patterns in an urban community: An epidemiological assessment. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*, 951-960.
- Zima, B. T., Bussing, R., Yang, X., & Belin, T. R. (2000). Help-seeking steps and service use for children in foster care. *Journal of Behavioral Health Services & Research, 27*, 271-285.