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Developing a network of support for relative caregivers

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Abstract

As kinship care arrangements become more common, providing services that address the needs of both relative caregivers and the children in their care is a growing concern for social workers and other family-service professionals. This study describes a sample of kinship caregivers who received computer training. The study presents quantitative and qualitative data regarding the effectiveness of the computer-training program which was designed to benefit kin caregivers by improving self-efficacy, enhancing career skills, augmenting social support and increasing confidence in their ability to help educate the children in their care. Forty-six kinship caregivers completed The Caregiver Computer Efficacy Scale (a 20-item instrument using a one-directional five-value Likert scale) before and after an 8-week computer-training course. Qualitative data was also collected during and after training sessions. The results indicate that this intervention was effective and can be used with kinship caregivers to increase self-efficacy, teach computer skills, enhance social support and build common ground between children and caregivers.

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Keywords: Kinship caregivers; Relative caregivers; Computer training program

1. Introduction

Research indicates that placing children with relative caregivers is a growing trend. Many studies have identified profiles of both kinship caregivers and the children in their care, while other research has focused on the special needs of these

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43 groups. While very few studies document or assess computer courses for kinship
44 caregivers, the existing research indicates the special needs of these relatives and
45 the benefits of computer trainings for other groups. It follows that computer trainings
46 may benefit relative caregivers in ways such as improved self-efficacy, enhanced
47 career skills, increased social support and improved confidence in engaging with
48 the children in their care by participating in their education.

49 *1.1. Kinship care*

50 Kinship care has become a common alternative to the use of foster care. According
51 to Ingram (1996), kinship care has been used for centuries, from Medieval Europe
52 to 20th-century Africa, but its formalized use as a child welfare service is a relatively
53 recent occurrence. This arrangement has become common due to several factors.

54 Over the past 20 years, out-of-home care has significantly increased. In 1982,
55 243 000 children were placed in out-of-home-care in the United States. By 1992,
56 the total number placed was 429 000, while during the same time period the number
57 of non-relative foster homes decreased (Ingram, 1996). In the 2000 US census,
58 nearly 2.5 million grandparents reported that they were responsible for a grandchild
59 under the age of 18, up from a reported 1.8 million children living in kinship care
60 settings in 1997 (Ehrle, Geen & Clark, 2001). As of 1997, the vast majority (1.3
61 million) of kinship arrangements were informal (without child welfare system
62 involvement), while half a million children were removed from their parents by
63 child welfare agencies and placed with relatives due to abuse or neglect (Ehrle et
64 al., 2001).

65 Another factor contributing to the rise in kinship care is the growing awareness
66 in the child welfare system of the advantages of relative care. As Ingram notes,
67 kinship care 'provides continuity, lessens the trauma of separation, preserves family
68 ties and offers growth and development within the context of a child's culture and
69 community' (1996, p. 552).

70 However, recent national studies using data from the 1997 National Survey of
71 American's Families concluded that those providing and receiving kinship care are
72 more likely to face disadvantages than those in non-kin placements (Ehrle & Geen,
73 2002; Geen, 2003). Although specific percentages were not cited in these studies,
74 previous research appears to suggest similar overall trends regarding kinship
75 providers (Dubowitz, Feigelman & Zuravin, 1993; Davidson, 1997). Significantly,
76 kinship care providers tend to have lower incomes than non-relative caregivers. This
77 may be due to a number of factors, including a tendency for kinship care providers
78 to be older, female, single parents who frequently have less formal education and
79 are in poorer health than non-kinship caregivers (Ehrle & Geen, 2002). Along with
80 affecting the financial resources available to provide for the needs of kinship care
81 providers and children, these factors are likely to result in caregivers having high
82 stress levels and less time and energy available to provide care and supervision for
83 children in their homes. Many grandparents raising their grandchildren report feeling
84 isolated, disappointed, angry, guilty, resentful and seriously concerned about finances
85 despite feeling a sense of fulfillment as caretakers (Rothenberg, n.d.).

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87 Caregivers may also feel limited in their ability to assist the children in their care
88 with homework or computer use due to their own lack of formal education. In fact
89 one of the areas grandparents raising grandchildren find the most difficult is
90 interacting with the schools because they often do not feel confident in communi-
91 cating with schools or helping their grandchildren succeed at school work (Smith,
92 Strozier & Chaffin, 2002). Learning to work with the schools may be crucial for
93 this population since children in kinship care tend to have problems with poor study
94 habits, lack of attention and poor concentration skills and higher than average rates
95 of acting-out behaviors (Dubowitz & Sawyer, 1994).

96 According to Ehrle and Geen's study (2002), kinship care providers are eligible
97 for but receive fewer services than non-kin caregivers. This is an unfortunate finding
98 since kinship caregivers would benefit greatly from services that assist them with
99 obtaining adequate income and other resources to help them provide a stable and
supportive home environment for the children in their care.

100 *1.2. Computers in community based programs*

101 A review of the literature found little recent research regarding the use of
102 computers in community based programs. In an article offering guidelines for these
103 kinds of training programs, Chaiklin suggests that instructors begin where the
104 students' interests lie and use computers for real purposes (1991). Chaiklin's article
105 also advises that students must have easy access to computers to be able to use
106 them regularly as tools, and that practice time is needed to learn the process of
107 using computers. The author suggests that 'computers can be used to open new
108 possibilities to accomplish existing objectives or objectives that may have once
109 been considered impossible' (Chaiklin, 1991, p. 74). Among these objectives may
110 be obtaining employment that requires computer skills, expanding support networks
111 and helping with the children's education.

112 A meta-analysis of studies on career counseling found that of the interventions
113 studied, the most effective ones targeted career-related skills, knowledge, decision-
114 making and self-efficacy (Whiston, Sexton & Lasoff, 1998). Self-efficacy, which
115 refers to an individual's beliefs about his or her personal effectiveness, may greatly
116 affect whether one attempts and succeeds at goals. 'People tend to avoid activities
117 they believe exceed their capabilities, but they undertake and perform assuredly
118 activates they judge themselves capable of handling' (Bandura, Adams & Howells
119 as cited by Mitchell & Krumboltz, 1984, p. 259). This suggests that career training
120 and computer skills training may be productive interventions to improve self-efficacy
121 in populations such as kinship care providers.

122 Another article asserts that computer-based groups can supplement in-person
123 support groups as a source of concurrent support and as a follow-up support. These
124 computer-based groups can also be useful while the client is on a waiting list, in
125 remote areas where groups are not available, or when time is limited (Finn, 1995).
126 This aspect of computer use can be especially important to older adults who are
127 unable to leave their homes due to poor health or, as is often the case of kinship
128 providers, unable to secure childcare allowing them to pursue social interests and

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support (Nahm, 2002). In a survey of adults 50 and older conducted from September to November 2002, 94% of respondents said they use computers and the internet to stay in touch with friends and relatives, a practice that is highly likely to increase the level of support they receive (Dieter, 2002).

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Although many inaccurately believe that older adults are not able or willing to learn about using computers, research shows that a growing number of seniors are realizing the benefits of learning this skill (Nahm, 2002). However, Nahm also pointed out that many older adults have neither had access to computers nor been able to learn to use computers due to a lack of organized efforts to make computers and computer training available to this population (2002).

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Meanwhile, 48 million or 90% of school-age children use computers in school, and availability of computers in most schools appears to ensure that the majority of children have access to and experience using computers regardless of varying demographic factors (US Department of Commerce, 2002). However, the literature indicates serious gaps in minority and white computer ownership and internet use (US Department of Commerce, 2002). As of September 2001, 61.1% of white households had a computer, while just 37.1% of African American households and 40.0% of Hispanic households had computers (US Department of Commerce, 2002). Although internet use among African Americans and Hispanics increased by approximately 30% annually between August 2000 and September 2001, 55.4% of white households had internet access compared to just 30.8% of African American and 32.0% of Hispanic households (US Department of Commerce, 2002).

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So while the vast majority of children routinely use computers for their education, older adults and people from diverse cultures often lack access to and knowledge about computers. This may suggest that many kin caregivers, who are often from older adult and diverse cultural populations, may not be using computers and may therefore find it especially difficult to help the children in their care with computer-related schoolwork (Bonecutter & Gleeson, 1997; Cook & Ciarico, 1998; Dubowitz, 1990; Grogan-Kaylor, 1996; Scannapieco, Hegar & McAlpine, 1997 as cited by Ehrle & Geen, 2002).

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There are no reports in the literature about computer courses specifically for kinship caregivers. However, the available research indicates that kinship caregivers and their families are more likely to face disadvantages than those in non-kin placements, indicating a need for interventions to empower kinship caregivers (Ehrle & Geen, 2002). Many kin caregivers are also likely to feel isolated and unsure of their ability to care for the children, and are eligible for but receive fewer services than non-kin caregivers (Ehrle & Geen, 2002; Rothenberg, n.d.; Smith et al., 2002). It seems likely that computer training could be beneficial for caregivers since computer access and training have been shown to enhance self-efficacy, career skills and social support for a number of populations, including with older adults (Whiston et al., 1998; Finn, 1995; Nahm, 2002). Since 90% of school-age children currently use computers, training in computer use may also enhance kin caregivers' ability to help the children with their schoolwork (US Department of Commerce, 2002).

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This study examined the hypotheses that computer trainings will benefit relative caregivers by improving self-efficacy, enhancing career skills, increasing social

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support and instilling greater confidence in their ability to participate in the education of children in their care.

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2. Method

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2.1. Participants

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Experimental participants were drawn from kinship support groups currently operating in a metropolitan two county region of a southern state. Verbal and written project announcements and invitations were shared with the members of the groups. Participation was voluntary, and no kinship caregiver who wished to participate was excluded.

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2.2. Instruments

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The instruments used were The Caregiver Computer Efficacy Scale and The Kinship Demographic Survey, which were designed by the researchers. The demographic survey collected descriptive demographic information about caregivers along with information specific to kinship care arrangements such as the number of children in their care and the type of custody arrangement in place. The Caregiver Computer Efficacy Scale is a 20-item instrument using a one-directional five-value Likert scale. The instrument queries subjects about availability of a computer and their level of computer skills to improve employability, increase social support, help the children, enhance enjoyment of computer use and control negative aspects of computer use.

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2.3. Procedures

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Written, voluntary informed consent was obtained from all participants. To ensure confidentiality, a numeric coding system was used to identify and track subjects.

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After completing the pre-test (The Caregiver Computer Efficacy Scale) and the demographic survey, participants attended the 8-week computer-training course conducted weekday mornings or afternoons. The course curriculum covered a new topic each week and provided hands-on instruction in a computer lab where each participant had direct access to a computer. Class topics included Personal Computer Fundamentals (week 1), Windows Fundamentals (week 2), Word Processing (week 3), Toolbars, Clip Art and Page Setup (week 4), Launch Tasks, Graphics and Manage Data (week 5), The Internet and the World Wide Web (week 6), Internet Continued, including Safety for Youth and Self on the Net and Email (week 7), and Games, Educational Tools for the Family and Art Applications (week 8). An instructor led the training sessions while coaches floated through the computer lab offering participants one-on-one assistance and encouragement. Most of the program's instructors and coaches were seniors who previously completed the computer-training program, giving them a unique understanding of the challenges and concerns many of the participants felt in their first experience using a computer. Upon

Table 1
Subscale of related issues on the Self-Efficacy Scale

| Subscale | Item(s) | | | | |
|---|---------|----|----|----|----|
| Accessibility to computers | 1 | 2 | | | |
| Increase in employment skills | 3 | 4 | 6 | | |
| Accessibility to social support | 4 | 5 | | | |
| Increased comfort in helping children | 11 | 12 | 13 | 14 | |
| Enjoyment in using computers | 19 | | | | |
| Ability to control negative aspects of computer | 7 | 15 | 16 | 17 | 18 |

completion of the course, participants were asked to complete the Caregiver Computer Efficacy scale again.

Qualitative data were also collected before and after training sessions. Coordinators of the program queried participants about their challenges and responses to the computer-training course and observed participant behavior.

2.4. Data analysis

The quantitative pre- and post-test data were assessed using *t*-test analysis and effect size calculations. A total score was calculated to indicate overall improvement or decrease in self-efficacy. Subscales reflecting important issues related to computer training for kinship caregivers were constructed, as shown in Table 1.

Qualitative data in the form of field notes taken during participant interviews were compiled and coded, leading to the emergence of several key themes. As is described by Royse, Thyer, Padgett and Logan (2001), the overall themes and specific quotes emerging from the qualitative data provided valuable insights about the participants and how they were impacted by the program.

3. Results

Along with an overview of demographic data for the study population that in many ways reflected previously reported characteristics of kinship caregivers, the results of data analysis reflected several key themes. These include feelings of increased self-efficacy, enhanced career skills, improved social support and increased ability to help educate the children.

3.1. Demographics

The subjects of this study were 46 kinship caregivers who were attending local support groups. Ages ranged from 30 to 79. Half of the respondents (50.0%) were between ages 50 and 59, 28.6% were ages 60–69, 11.9% were ages 40–49, 7.1% were ages 70–79 and 2.4% were ages 30–39. These demographic results are similar to those cited in previous research, which show a tendency for kinship care providers to be older adults (Ehrle & Geen, 2002).

Table 2
Demographic characteristics of current sample and US population

| | Current sample (<i>n</i> =46) (%) | US (<i>n</i> =281,421,906) (%) |
|---------------------------------|---------------------------------------|------------------------------------|
| Marital status | | |
| Married | 42.5 | 54.4 |
| Divorced | 30.0 | 9.7 |
| Widowed | 12.5 | 6.6 |
| Never married | 7.5 | 27.1 |
| Separated | 7.5 | 2.2 |
| Education level | | |
| Less than ninth grade | 12.2 | 7.5 |
| Some high school | 22.0 | 12.1 |
| High school graduate or GED | 24.4 | 28.6 |
| Some technical school | 4.9 | NA |
| Technical school graduate | 9.8 | NA |
| Some college | 19.5 | 21.0 |
| College degree | 7.3 | 21.8 |
| Graduate or professional degree | 0% | 8.9 |
| Income | | |
| \$9,999 or lower | 76.9% | 5.8% |
| \$10,000–\$14,999 | 2.6% | 4.3% |
| \$15,000–\$24,999 | 7.7% | 10.7% |
| \$25,000–\$34,999 | 10.2% | 12.0% |
| \$35,000–\$49,999 | 2.6% | 17.1% |
| \$50,000 + | 0% | 50.1% |

A relatively limited range of races or ethnicities was reported, with the majority (57.5%) identifying themselves as African American followed by Caucasian (30%), Hispanic/Latino (7.5%) and Native American (5%). This reflects findings in prior research showing that children in kinship care have a far greater tendency to be African American than children in non-kinship settings, implying that their caregivers are likely to be African American as well (Bonecutter & Gleeson, 1997; Cook & Ciarico, 1998; Dubowitz, 1990; Grogan-Kaylor, 1996; Scannapieco et al., 1997 as cited by Ehrle & Geen, 2002). The proportion of African American kinship caregivers in the study is large compared to the general population, which is just 12.3% African American (US Census Bureau, 2000).

Of the respondents, 57.5% were single (divorced, widowed or separated) while 42.5% were married (see Table 2). Kinship caregivers appear to be slightly less likely to be married compared to the US population in general, in which 54.4% reported being married (US Census Bureau, 2000). The study results also reflect overall findings showing that kinship care providers are likely to be single parents (Ehrle & Geen, 2002).

Participants' education levels ranged from less than a ninth grade education to college graduation (see Table 2). The greatest number of respondents had some high school education (22.0%), followed by 19.1% with some college education.

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Table 3
Ages of children in study

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| Ages | Percentages (%) (<i>n</i> = 108) |
|-------------------|--------------------------------------|
| 1 year or younger | 4.8 |
| 2–4 years | 10.5 |
| 5–9 years | 36.5 |
| 10–14 years | 33.6 |
| 15 years or older | 14.4 |

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Seventeen percent of respondents graduated from high school, 12.2% completed less than ninth grade, 9.8% graduated from technical school, an equal number received their GED (7.3%) or graduated from college (7.3%) and 4.9% completed some technical school. A greater proportion of participants in this study received a lower level of education than the general population (US Census Bureau, 2000). But the education level of participants in this study appeared to be somewhat higher than that of kinship care providers found in previous research; only 34.2% of participants had a lower than 12th grade education compared to a study conducted in Baltimore finding that 57% of caregivers had less than a 12th grade education (Dubowitz et al., 1993) and a Washington State study reporting that 42% of kinship caregivers did not complete high school (Mayfield, Pennucci & Lyon, 2002).

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In terms of family income, 76.9% of respondents reported earning \$9999 or less in a year, 2.6% stated their income as between \$10 000 and \$14 999, 7.7% between \$15 000 and \$24 999, 10.2% between \$25 000 and \$34 999 and just 2.6% between \$35 000 and \$39 999 (see Table 2). These results are in sharp contrast with reported incomes of the US public, which tend to be substantially higher than those of kinship care participants (US Census Bureau, 2000).

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A high percentage of participants (42.9%) stated that they were retired. The next largest group (31.0%) stated they were unemployed due to disability. Other participants were employed full-time (7.1%), unemployed due to the age of the child in their care (7.1%) or unemployed because they were unable to find a job (4.8%). The remaining participants reported that they were either employed part-time (2.4%), unemployed due to health (2.4%), or unemployed due to other factors (2.4%). So while only 9.5% of participants were employed, the vast majority of subjects were not currently employed. The number of subjects not employed in this study was far greater than expected based on previous studies of kinship caregivers (Ehrle & Geen, 2002) and nationally reported statistics (US Census Bureau, 2000).

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The number of children in kinship caregivers' homes ranged from one to six, with a mean of 2.60. Reported ages ranged from less than 1 year to 17, with the mean 9.11. The numbers of male and female children reported were nearly equal, with 53 males and 55 females (see Table 3). The largest grouping (36.5%) of children in care were between 5 and 9 years old, followed closely by ages 10–14 (33.6%). The remaining children were 15 years or older (14.4%), between ages 2 and 4 (10.5%) or 1 year or younger (4.8%).

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294 By far the greatest proportion of caregivers (77.8%) were grandmothers, followed
 295 by great-grandmothers (5.6%), aunts, step-grandfathers or non-relatives (3.7% each),
 296 cousins (2.8%), grandfathers (1.9%) and other types of relatives (0.9%). Compared
 297 to previously reported findings that the majority (57%) of children in kinship
 298 arrangements are cared for by a grandparent with the next largest portion (22%)
 299 cared for by aunts and uncles (Ehrle & Geen, 2002), this study reflects a higher
 300 than expected percentage of grandmother caregivers and a lower than expected
 301 number of aunts and uncles caring for relatives. The vast majority of children had
 302 been living with their relative caregiver for 5 or more years (60.4%), with 19.8%
 303 of the sample in kinship care for 3 or 4 years, 7.9% for 1 or 2 years, and an equal
 304 percentage (5.9%) from 6 to 11 months or less than 6 months. As the literature
 305 suggests is the norm, the majority of kinship caregivers described their custody
 306 arrangements as informal (42.9%), without the benefit of a court order (Ehrle et
 307 al., 2001). Dependency court placements, where short or long-term custody is
 308 granted due to child welfare involvement, made up 30.4% of responses, while
 309 20.0% of placements were reported as family law court placements (custody
 310 awarded through the family law division) and 6.7% probate court placements
 (custody awarded through the probate division).

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3.2. *Self efficacy*

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313 The results indicate that significant progress was made in participants' level of
 314 comfort with the majority of computer-related functions rated in this study. In almost
 315 half ($n=9$) of the items on The Caregiver Computer Efficacy Scale, the subjects'
 316 post score differed in a positive way from the pre-score at the 0.001 level of
 317 significance; in two items at 0.01, and in four items at 0.05. In six of the items, the
 318 effect size exceeded 1.0 and five other items neared 1.0, also indicating significance
 319 (see Table 4). The overall score had a P value of 0.094 and an effect size of 1.2, a
 large effect size showing close to significant changes in overall self-efficacy.

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321 Gains in confidence and a sense of enhanced overall self-efficacy are evidenced
 322 by participants' comments both before and after the training. Before the first
 323 training, comments reflected a nervous and expectant tone.

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- What if I look like a fool?
- It has been so long since I went to school.
- My kids think I am stupid because I cannot do anything on the computer.
- I hope I can learn something.

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After the training sessions, researchers noted that participants were often filled
 with laughter and beamed with a sense of pride and accomplishment, which was
 reflected in their comments.

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- I actually did not break the computer.
- I was able to finish the typing drill with only two mistakes.
- This will knock the socks off my sister. She always said I did not have what it takes to go to a class at a University.

Table 4
Descriptive statistics on the Self-Efficacy Scale

| Topic | Pre mean/S.D. | Post mean/S.D. | P-value from t-test | Effect size |
|---|---------------|----------------|---------------------|-------------|
| Total | 2.78/0.988 | 3.98/0.446 | 0.094 | 1.198 |
| 1. Computer in home | 2.96/1.601 | 4.33/1.049 | 0.000 | 0.856 |
| 2. Computer near home | 2.50/1.449 | 3.88/1.107 | 0.000 | 0.952 |
| 3. Type letter on computer | 2.52/1.369 | 4.26/0.712 | 0.000 | 1.271 |
| 4. Send and receive email | 2.33/1.204 | 4.21/0.833 | 0.000 | 1.562 |
| 5. Participate in message boards | 2.40/1.258 | 3.84/0.943 | 0.000 | 1.145 |
| 6. Search the internet | 2.46/1.334 | 3.92/1.017 | 0.000 | 1.095 |
| 7. Protect self from scam artists | 2.35/1.263 | 4.12/0.864 | 0.013 | 1.401 |
| 8. Maintain computer equipment | 2.62/1.329 | 3.46/1.363 | 0.013 | 0.632 |
| 9. Pay for computer equipment | 2.35/1.384 | 2.69/1.258 | 0.280 | 0.246 |
| 10. Pay for computer service | 2.28/1.339 | 2.72/1.173 | 0.134 | 0.329 |
| 11. Help child using computer | 2.69/1.463 | 4.12/0.864 | 0.000 | 0.977 |
| 12. Help child with computer homework | 2.69/1.543 | 4.31/0.549 | 0.000 | 1.050 |
| 13. Teach child computer etiquette | 2.64/1.578 | 4.16/0.746 | 0.000 | 0.963 |
| 14. Talk with teacher about computer homework | 2.77/1.608 | 4.15/0.834 | 0.002 | 0.858 |
| 15. Monitor child's use of email | 2.89/1.553 | 3.93/1.141 | 0.006 | 0.670 |
| 16. Monitor child's use of chatrooms | 2.93/1.567 | 3.85/1.262 | 0.013 | 0.587 |
| 17. Protect child from cyber predators | 2.96/1.685 | 4.04/1.148 | 0.013 | 0.641 |
| 18. Restrict child's use of computer | 3.73/1.538 | 4.08/1.294 | 0.339 | 0.228 |
| 19. Do fun computer activities with child | 3.62/1.602 | 4.51/0.884 | 0.024 | 0.431 |
| 20. Ask child for help on computer | 3.69/1.619 | 3.88/1.336 | 0.546 | 0.117 |

Note: $n=46$.

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- I think I would not say a thing about the class until we are finished and then I will just sit down and do my thing when the kids are doing their homework.
- My arthritis bothers my fingers but I do not care...this is for me, just for me.
- This is the first time in a very long time that I have felt like I was doing something important other than raising my grandbabies.

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The training also served as an impetus for participants to find additional self-empowering resources. Since most attendees reported not having computers at home, they sought community resources such as public libraries and family service centers where they could practice their computer skills. As participants achieved a significant positive change in their reported access to computers (items #1 and 2—Table 4), they also developed relationships with these community resources and learned about additional supports that could provide opportunities for themselves and their children.

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3.3. Enhanced career skills

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Table 4 indicates significant positive changes in participants' self-reported acquisition of employment skills (items #3, 4 and 6—Table 4). Several caregivers discussed increased levels of confidence in applying for jobs requiring computer skills. One participant received help developing her resume on the computer. She then helped her grandson with his resume. Two weeks after the training ended, she had found a job that utilized her newly acquired computer skills and her son also found a job, which he attributed in part to his new resume. Another participant felt confident enough to begin studies at the local university, a dream she had nearly given up on before her positive educational experience with the computer-training program. Several other accounts of participants gaining employment were collected. Most of the caregivers cited their new familiarity with computers along with their newly elevated levels of confidence as key reasons for their success in getting jobs.

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3.4. Improved social support

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Another result of the training was a significant increase in accessibility to social support for caregivers (items #4 and 5—Table 4). The qualitative data supported these findings. Researchers observed a strong camaraderie quickly building among participants, who were observed giving and receiving social support as they rode to and from classes together and encouraged each other to succeed in the training program and with raising the children. Participants also arranged to meet in small groups outside of class to practice their computer skills. Through the computer-training, participants learned how email and message boards can help them build upon and sustain relationships with their support systems, and significant increases in their willingness and ability to use these resources were reported by many caregivers.

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3.5. Increased ability to educate the children

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A final theme emerging from quantitative and qualitative data analyses was an increase in the caregivers' sensitivity to the children's academic issues and increased

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skills in helping the children with homework. Table 4 indicates significant positive changes in participants' reported comfort in helping children with computers (items #11, 12, 13 and 14—Table 4). The qualitative data reflected this in caregiver comments.

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- I guess it is not always easy for our kids and we forget that.

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- I know I would not be so frustrated with them when they have a tough time with their homework.

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- If we need some help, now we know how to look it up on the web.

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- With my two ears, eyes and a few fingers on the other hand, I will not give up on going to school. This is my chance and I am learning that I can help my grandchildren find help with their homework on the web' (Reported by a grandmother who broke her arm in an accident on the way to a training session.)

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Less significant gains were made in participants' level of enjoyment using computers with children (item #19—Table 4). However, the data indicate significant improvements in four of five areas regarding the caregivers' ability to control negative aspects of computer use for themselves and the children (items #7, 15, 16, 17 and 18—Table 4). Several caregivers commented on their new awareness of the need to protect the children by monitoring their computer use. A group of participants planned to voice their concerns about potential dangers children may encounter on the internet to school officials, seeking better community-wide safeguards.

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4. Discussion

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4.1. Kinship care

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The sample in this study appears to be representative of kinship caregivers described in previous literature, with few exceptions. The education level of participants is somewhat higher than was reported in an earlier study while the participants were less likely to be employed than in some previous research (Ehrle & Geen, 2002). However, because training sessions occurred weekdays, it is likely that a higher number of employed kinship caregivers were unable to participate because of conflicts with work schedules. As was the case in previous studies reviewed, the subjects in this study were mostly African American (57.5%) (Bonecutter & Gleeson, 1997; Cook & Ciarico, 1998; Dubowitz, 1990; Grogan-Kaylor, 1996; Scannapieco et al., 1997 as cited by Ehrle & Geen, 2002). The study findings also mirror research showing that a low percentage of African American and Hispanic households report having access to computers in their home (US Department of Commerce, 2002). In general, the caregivers participating in this study appear to be more disadvantaged than the overall United States population and than is seen in many previous reports describing kinship caregivers (US Census Bureau, 2000; Ehrle & Geen, 2002).

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4.2. Self-efficacy

445 The subjects in this study appear to have gained self-efficacy through the
446 intervention of an 8-week computer-training course. Along with the significant
447 improvement shown by the results of the Caregiver Computer Efficacy Scale, the
448 qualitative data shows a growing sense of achievement and self-confidence in
449 participants' ability to use computers. Caregiver responses also overwhelmingly
450 revealed increased feelings of accomplishment, hope and confidence in their ability
451 to access helpful information and resources.

452 Since previous studies found that those in kinship care settings are more likely to
453 face disadvantages than those in non-kin placements and that kinship care providers
454 tend to receive fewer services than non-kin caregivers, this ability to find resources
455 shows an important gain for participants that may potentially have long-term positive
456 effects on kinship families (Ehrle & Geen, 2002; Geen, 2003).

457 As the literature on self-efficacy implies, caregivers who feel more capable in
458 one area of their lives, such as in learning new computer skills, may benefit from a
459 greater overall belief in their ability to learn new skills and overcome life-challenges
460 they previously felt incapable of handling (Bandura, Adams & Howells, 1979).
461 While potentially empowering caregivers to try to succeed in a greater range of
462 beneficial endeavors, this improved level of overall self-efficacy may also provide
463 a positive example for the children in their care to follow, creating a legacy of
464 empowerment and success that may greatly impact this and future generations.

4.3. Career skills

466 The study's finding of significant improvements in computer skills matches
467 expectations based on the literature showing the benefits of interventions targeting
468 career-related skills, knowledge and self-efficacy for other populations (Whiston et
469 al., 1998). The quantitative data in this study reflected a significant increase in the
470 participants' confidence in career skills (e.g. using computers to type a letter, send
471 and receive email or search the internet) while the qualitative data reported that
472 participants felt confident enough to apply for and get jobs they did not feel
473 qualified for before the training. It appears that improved career skills and confidence
474 in these skills have the potential to improve caregivers' economic self-sufficiency
475 along with further bolstering their sense of self-worth and reducing stress, as is
476 suggested by earlier research (Whiston et al., 1998; Rothenberg, n.d.). Based on the
477 low incomes reported by kinship caregivers in this study and in previous research
478 (Ehrle & Geen, 2002; Rothenberg, n.d.) increased economic self-sufficiency appears
479 to be a key area where caregivers may potentially benefit from interventions such
480 as the computer-training offered in this study.

4.4. Social support

482 Another benefit of the computer training program was increased social support
483 for caregivers. Previous studies reflect a tendency for kinship caregivers to feel

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isolated, disappointed, angry and stressed (Rothenberg, n.d.). A review of recent research presented by Whittier, Coon and Aaker (2002) suggests that group interventions combining support and education are highly effective in improving social support for caregivers who feel overwhelmed by their responsibilities. Nahm (2002) also states that increased social support leads to improved psychological well-being for senior adults involved in computer training programs. Caregivers in this study appeared to benefit from developing strong new friendships as they learned new skills during the course of the computer training. This newfound social support appeared to empower participants to succeed with the computer course while giving them an important outlet for discussing the joys and hardships of raising relative children. They also learned new and convenient ways to keep in touch with one another so this new source of social support can continue to be available to them in the future.

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4.5. Increased confidence in educating the children

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The scores on The Caregiver Computer Efficacy Scale indicate that the caregivers in this study made significant gains in becoming more confident about helping with their children's education. Because of their own struggles with learning new skills, many caregivers felt they could better relate to their children's challenges with schoolwork. As the caregivers' newfound confidence in this area increased, they indicated a higher level of patience with their children.

This is a promising finding since previous research shows that relative caregivers often lack confidence in their ability to interact with school systems and to help the children with schoolwork and children in kinship care may particularly need their caregivers' support in this area since school-related problems are common in this population (Dubowitz & Sawyer, 1994; Smith et al., 2002).

A significant increase in awareness of internet safety issues and the medium's potential negative impact on children reflected a level of involvement in the children's daily lives that the caregivers had not previously enjoyed, giving them an increased feeling of connectedness to the children and motivating them to plan to speak out in an effort to enhance the children's safety.

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4.6. Limitations of the study

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Several limitations impact the generalizability of this study. A relatively small number of subjects were included, and the instruments used were researcher developed.

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4.7. Further research

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In the future, replication of this study with more caregivers and control groups for comparison may lead to greater certainty of the conclusions drawn from this study. In addition, it would be helpful to follow up with participants to evaluate the long-term effects of the computer-training course in areas such as improving

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participants' employability, more positive interactions with children and their teachers, and greater educational achievement for children. Measures of validity and reliability, as well as a standardization study using a norming population of kinship caregivers, should be conducted for The Caregiver Computer Efficacy Scale.

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4.8. Conclusion

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This 8-week computer-training program increased self-efficacy for caregivers as measured by The Caregiver Computer Efficacy Scale and qualitative data presented. Social workers in community-based practice can use this intervention with kinship caregivers to increase self-efficacy while teaching important computer skills for survival in our technological age. In addition, the social benefits of a program such as this, where caregivers build friendships, provide each other with emotional support, and they learn to access resources for themselves, are immense. Finally, with the challenges inherent to kinship care arrangements, fostering a common ground between children and caregivers can prove a valuable tool for the future of these families.

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