

# Technology Use among Emerging Adult Homeless in Two U.S. Cities

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Researchers have shown increasing interest in technology use among youths and emerging adults (Bleakley, Merzel, VanDevanter, & Messeri, 2004; Redpath et al., 2006; Valentine & Bernhisel, 2008). However, no research to date examines this issue among emerging adult homeless. As these young people are more difficult to engage in services (Ensign & Bell, 2004; Hudson, Nyamathi, & Sweat, 2008) and have higher rates of mental illness (Merscham, Van Leeuwen, & McGuire, 2009) and substance abuse (Barczyk & Thompson, 2008) than the general population, using technology may provide a novel means to approach them. This exploratory study sought to answer two questions: (1) How often, where, and for what purpose do emerging adult homeless use technology? (2) What risk factors (for example, transience, mental illness, addiction) predict technology use?

## METHOD

### Sample and Recruitment

Using purposive sampling, we recruited 100 emerging adult homeless from Denver ( $n = 50$ ) and Los Angeles ( $n = 50$ ) from shelters, drop-in centers, and street outreach (Bender, Ferguson, Thompson, Komlo, & Pollio, 2010; Ferguson, Bender, Thompson, Xie, & Pollio, 2011; Ferguson, Jun, Bender, Thompson, & Pollio, 2010; Sheehan et al., 1998; Thompson, Jun, Bender, Ferguson, & Pollio, 2010). To meet inclusion criteria, participants needed to be in the age range of 18 to 24 years, have spent at least two weeks away from home in the previous month, and provide written informed consent. Wherever possible, agency case managers made the determination whether a particular individual was eligible for recruitment on the basis of personal knowledge of the individual and the individual's current state of

sobriety. In cases of key informant referral, the interviewer made the determination.

### Data Collection and Measures

Research staff administered a 45- to 90-minute retrospective interview with participants, who were compensated \$10. Both study design and data collection have been described elsewhere (Bender et al., 2010). Human subjects approval was granted by each researcher's university.

Technology use was measured by four items (number of days per week you use e-mail, the Internet, a computer, or MySpace). Because nearly half the sample reported daily use on at least one variable, rather than treating the variable as interval-continuous, two dichotomous variables were created: (1) daily use of any technology (0 = everyday, 1 = less than daily) and (2) weekly use of any technology (0 = 1 to 6 days a week, 1 = no days a week). We created the first variable to explore differences between daily users versus all others; the second to compare between regular users (at least weekly) and those not regularly using computers. Three open-ended questions queried the following: (1) With whom do you communicate online? (2) What is the purpose of your online use? (3) Where do you access technology?

Predictors of technology use included age, location (0 = Los Angeles, 1 = Denver), gender (0 = female, 1 = male), race-ethnicity (0 = white, 1 = black, 2 = Latino), education (0 = high school dropout, 1 = graduate or GED holder), current housing status (0 = in stable housing, 1 = homeless or in shelter), transience status (0 = no moves, 1 = at least one intercity move). Data on self-reported criminal behaviors (0 = never arrested, 1 = at least one arrest) and social support (frequency of contact: 0 = almost never or occasionally, 1 = often or a lot) were also collected. Using

the Mini International Neuropsychiatric Interview (Sheehan et al., 1998), we assessed symptom criteria for posttraumatic stress disorder, mania, depression, and alcohol and drug abuse or dependence (0 = does not meet criteria, 1 = meets criteria).

### Data Analysis

Independent samples *t* tests and chi-square or Fisher's exact tests were used to identify differences in characteristics of daily versus nondaily and at-least-weekly versus less-than-weekly technology users. To analyze open-ended questions, we used in vivo coding (Creswell, 2007). The first two authors coded the data separately, and discrepancies in themes and items were resolved in a meeting between the coders. The qualitative analysis follows a strategy used by the first author in previous publications (compare Pollio, North, Reid, Eyrych, & McClendon, 2006; Thompson, Pollio, Eyrych, Bradbury, & North, 2004).

### RESULTS

Demographic characteristics are reported in Table 1. Almost half the sample (46 percent) reported daily technology use, and a vast majority of the sample (93 percent) reported using at least weekly. Use of any Internet technology averaged 4.6 (*SD* = 2.5, range = 0 to 7) days per week, and individuals reported using e-mail 3.8 (*SD* = 2.7, range = 0–7), social network Web sites 3.8 (*SD* = 2.8, range = 0 to 7), and the computer more generally 2.8 (*SD* = 2.6, range = 0 to 7) days per week. Young adults who used technology daily were more likely to be white [ $\chi^2(1, N = 100) = 4.35, p \leq .01$ ], to seek social support from other

acquaintances [ $\chi^2(1, N = 100) = 3.95, p \leq .05$ ], and to meet criteria for mania [ $\chi^2(1, N = 100) = 3.99, p \leq .05$ ], compared with individuals using technology less than daily. No other comparisons were significant in any analyses.

The qualitative analysis revealed that participants most often communicated with (question 1) included friends (71 percent) or immediate family members (55 percent). Fifty-six percent of participants reported use of technology (question 2) for communication, and 46 percent reported use of technology for work-related activities. Other uses included entertainment (36 percent), social networking (22 percent), and education (22 percent). The two primary locations where technology was accessed (question 3) were at a specific social service agency (60 percent) or library (54 percent). Other responses included Internet cafes (14 percent), friend's or family's equipment (12 percent), and personal Internet-capable cell phones and computers (6 percent).

### DISCUSSION

Findings suggest that emerging adult homeless are consistent and frequent users of technology. As a first exploration, this study provides compelling evidence that technology use is extremely common for this population and that there are extremely limited differences based on demographic or risk factors.

Results show that technology use of emerging adult homeless is similar to that in general populations (National Telecommunication and Information Agency [NTIA], 2004) and exceeds patterns identified in studies of urban youth (Bleakley et al., 2004; Valentine & Bernhisel, 2008) and adult homeless (Redpath et al., 2006). The effort required to access the Internet in public settings potentially indicates the high value placed on technology by these young adults. Although a few significant predictors increased likelihood of daily technology use, the likelihood that these few significant findings represent Type I error appears high. Overall, the general lack of significance suggests that technology use may be a common practice among emerging adult homeless regardless of risk factors.

This study has a number of limitations. The small sample limits generalizability of the findings to the general population of homeless young adults. Recruitment strategies resulted in nonprobability urban service-engaged samples, a common sampling

**Table 1: Demographic Characteristics of the Sample (N = 100)**

| Characteristic                        | n or M (SD) |
|---------------------------------------|-------------|
| Age (in years)                        | 20.4 (1.8)  |
| Race-ethnicity                        |             |
| White                                 | 25          |
| African American                      | 26          |
| Hispanic                              | 28          |
| Other                                 | 21          |
| Male                                  | 67          |
| Arrested at least once                | 72          |
| Currently housed                      | 56          |
| Reporting at least one intercity move | 75          |

Note: Because sample size is 100, number of respondents and percentage of the sample are identical.

method in studies of this population (NTIA, 2004). As with all self-report data, reliability can be questioned.

Despite Redpath et al.'s (2006) findings of low Internet use and access in indigent homeless drug users, our findings suggest that technology use by emerging young adult homeless is ubiquitous. The different means described to access the Internet suggest that the emerging adult homeless have addressed challenges of access. The emerging use of technology may reflect promise for improving service linkage for this hard-to-reach population. The findings suggest the potential for the incorporation of technology into practice. Potential uses include coordination of agency care through online sources, use of technology by agencies for online outreach, provision of online services as a means for attracting youths to the agency location, and incorporation of technology in training and employment opportunities. **SW**

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