Characteristics Associated with Pain in Older People Living with HIV

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INTRODUCTION

Chronic pain impacts up to 85% of people living with HIV (PLWH).[1] The high prevalence is due to direct and indirect effects of HIV and is magnified by co-occurring psychosocial factors such as depression,[2] stress,[3] past trauma,[4] social isolation,[5] and substance use.[6] Gaps in knowledge exist for factors that impact pain in older (age 50+) PLWH.

To identify specific psychosocial and clinical factors associated with chronic pain, an online registry, Aging with Dignity, Health, Optimism & Community ("ADHOC"), that collects patient-reported socioeconomic and outcomes data from older PLWH, was utilized.

METHODS

ADHOC is an observational disease registry that has three main goals: (1) to research how HIV impacts the aging process, (2) to improve clinical care, and (3) to create community by connecting patients to one another using a secure, online environment. The data collected through this registry is self-reported and includes information on sociodemographic characteristics, activities and interests, HIV diagnosis and status, health care use and satisfaction, antiretroviral therapy, comorbid medical conditions, health and well-being, substance use, and sexual practices. Where appropriate, various validated PROs are used. To date, participants have been identified and recruited by medical providers specializing in HIV care from a total of 10 sites in CA, IL, Washington DC, FL, NC, TX, WA, and WI.

As part of the registry, participants were asked to report whether they had been diagnosed with specific medical conditions. Participants were instructed that "diagnosed means the condition was confirmed by a medical professional." Within the pain conditions category, participants were asked whether they had been diagnosed with back pain, hip pain, joint pain, or muscle pain, and were also instructed to write in chronic pain conditions that were not listed.

Cross-sectional analyses of the relationship between pain and selected covariates, among participants who reported at least one pain condition, were performed using data from 1,051 ADHOC participants. Pearson correlation coefficients were determined for pain and selected covariates.

RESULTS

Among the participants enrolled in ADHOC, the mean age was 60.2 ± 6.1 years, with a range of 50-89 years. Fifty-six percent of participants were between 50 and 59 years old, and 44% were 60 years of age or older. The majority of participants were male (85%), white (69%), and gay, lesbian, or bisexual (83%). Forty-eight percent had at least a four-year college education, and 57% had an annual household income of less than $50,000 (Table 1).

Overall, 66% (n = 696) reported one or more of the pain conditions evaluated. With regard to socioeconomic factors, bivariate analyses showed that having pain was associated with a lower annual household income and being unemployed. From a behavioral and clinical perspective, having pain was associated with having six or more medical conditions, using tobacco, and using less alcohol. With regard to psychosocial factors, having pain was associated with anxiety, depression, loneliness, lower resilience, lower quality of life, lower social well-being, and lower cognitive function (Table 2).

CONCLUSION

Overall, this study highlights the complex relationship between pain and other factors in older PLWH. Many factors identified, such as socioeconomic status and multimorbidity, will be difficult to change. However other factors, such as anxiety, depression, and smoking, may represent targets for future interventions. Focusing on improving chronic pain management should be a priority due to the known impact of chronic pain on physical and cognitive function and subsequent independence in this vulnerable population.

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Table 1. Demographic characteristics of ADHOC participants (n=1051)

Characteristic	Number (%) of cases
Age	
50-59	590 (56)
60+	461 (44)
Gender	
Male	896 (85)
Female, transgender, other	155 (15)
Ethnicity	
White	727 (69)
Black	212 (20)
Hispanic/Latino	92 (9)
Sexual Orientation	
Gay, lesbian, bisexual	869 (83)
Straight	182 (17)
Education	
Less than college	545 (52)
College graduate	317 (30)
Graduate school or more	189 (18)
Income	
Less than $50,000	555 (57)
More than $50,000	415 (43)

Table 2. Correlation between pain and various characteristics among older PLWH

Characteristic	*r*	*p*-value
Annual household income (less than $50,000 / $50,000 and greater)	-0.12	< 0.001
Currently employed (yes/no)	-0.15	< 0.001
Number of comorbidities (less than six / six or more)	0.33	< 0.001
Current smoker (yes/no)	0.074	0.017
Hazardous drinking (yes/no)	-0.063	0.041
Anxiety (yes/no)	0.12	< 0.001
Depression (yes/no)	0.081	0.009
Loneliness (3-9, higher scores indicate greater loneliness)	0.094	0.002
Resilience (0-8, higher scores indicate more resilience)	-0.093	0.003
Quality of life (1-5, higher scores indicate higher quality of life)	-0.17	< 0.001
Social well-being (0-32, higher scores indicate greater social well-being)	-0.071	0.021
Cognitive function (0-12, higher scores indicate greater cognitive function)	-0.27	< 0.001