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Trends in Outpatient Psychotherapy Among Adults in the US

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IMPORTANCE While access to psychotherapy has recently increased in the US, concern exists that recent gains may be unevenly distributed despite teletherapy expansion.

OBJECTIVE To characterize recent trends and patterns in outpatient psychotherapy by US adults.

DESIGN, SETTING, AND PARTICIPANTS This is a repeated cross-sectional study of psychotherapy use among adults (ages \geq 18 years) in the 2018 to 2021 Medical Expenditure Panel Surveys, which are nationally representative surveys of the civilian noninstitutionalized population. Data were analyzed from March to August 2024.

MAIN OUTCOMES AND MEASURES Age-, sex-, and distress-adjusted differences between 2018 and 2021 in use of any psychotherapy and video-based psychotherapy (teletherapy) in 2021 with tests for trend differences (interactions) across levels of sociodemographic characteristics and distress were assessed. Psychological distress was measured using the Kessler-6 scale, with scores of 13 or higher defining serious psychological distress, 1 to 12 defining mild to moderate distress, and 0 defining no distress.

RESULTS The analysis involved 89 619 participants (47 838 female [51.5%] and 41781 male [48.5%]; 22 510 aged 18-34 years [29.0%], 43 371 aged 35-64 years [48.8%], and 23 738 aged \geq 65 years [22.2%]). Between 2018 and 2021, psychotherapy use increased significantly faster for females (931/12 270 females [7.7%] to 1207/12 237 females [10.5%]) than males (547/10 741 males [5.2%] to 655/10 544 males [6.3%]), younger (455/6149 individuals [8.0%] to 602/5296 individuals [11.9%] aged 18-34 years) than older (217/5550 individuals [3.6%] to 304/6708 individuals [4.6%] aged ≥ 65 years) adults, college graduates (503/6456)adults [7.6%] to 810/7277 adults [11.4%]) than those without a high school diploma (193/3824 adults [5.5%] to 200/3593 adults [7.0%]), privately insured (881/14 387 adults [6.1%] to 1154/13 414 adults [8.9%]) than publicly insured (558/6511 adults [8.8%] to 659/7453 adults [8.8%]) individuals, adults at 2 to 4 times the poverty level (370/6670 adults [5.7%] to 488/6370 adults [8.2%]) than those below the poverty level (384/4495 adults [9.7%] to 428/4760 adults [10.0%]), employed persons overall (733/13 358 adults [5.7%] to 1082/12 365 adults [8.9%]) than unemployed persons aged 65 years and younger (547/5138 adults [10.8%] to 519/4905 adults [10.5%]), and urban (1335/20 682 adults [6.5%] to 1729/20 590 adults [8.7%]) than rural (143/2329 adults [6.4%] to 133/2191 adults [5.9%]) residents. In 2021, after controlling for distress level, teletherapy use was significantly higher among younger than middle-aged (aged 35-64 years: difference, -3.7 percentage points; 95% CI, -5.1 to -2.3) or older (aged \geq 65 years: difference, -6.5 percentage points (95% CI, -8.0 to -5.0 percentage points) adults, females (difference, 1.9 percentage points; 95% CI, 0.9 to 2.9 percentage points) than males, not married (difference, 2.9 percentage points; 95% CI, 1.6 to 4.2 percentage points) than married persons, college educated adults (difference, 4.9 percentage points; 95% CI, 3.3 to 6.4 percentage points) than those without a high school diploma, people with higher (eg, 400% vs <100% of the federal poverty level: difference, 2.3 percentage points; 95% Cl, 1.2 to 3.5 percentage points) than lower incomes, privately than publicly (difference, -2.5 percentage points; 95% CI, -3.4 to -1.5 percentage points) insured persons, and urban (difference, 2.7 percentage points; 95% CI, 1.5 to 3.8 percentage points) than rural residents.

CONCLUSIONS This study found that psychotherapy use increased significantly faster among several socioeconomically advantaged groups and that inequalities were evident in teletherapy access. These trends and patterns highlight a need for clinical interventions and health care policies to broaden access to psychotherapy including teletherapy.

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sychotherapy is one of the most common modalities for delivering mental health care in the US.¹ We recently reported that the percentage of US adults receiving psychotherapy increased from 6.5% in 2018 to 8.5% in 2021.² However, the extent to which this overall increase varies across sociodemographic groups or levels of psychological distress remains unknown. The importance of understanding national trends and patterns of psychotherapy arises from the selective nature of mental health care-seeking behavior. Several steps separate experiencing distress from receipt of psychotherapy or other mental health treatments, including identification of distress as symptoms that may benefit from treatment, deciding whether action is needed to address symptoms, selecting among available treatment options, and initiating treatment. During this process, attitudinal, financial, geographic, logistical, and other structural barriers can impede the seeking of mental health care; these barriers may include competing demands, such as childcare or other family responsibilities.³ A population-based examination of psychotherapy trends can therefore reveal sociodemographic groups with diminishing service use, which in turn can inform initiatives to help make these services more accessible to those groups.^{4,5} Given pre-COVID-19 pandemic evidence that unmet needs for mental health services were significantly higher among middle aged than older adults, women than men, unmarried than married individuals, people without than with health insurance, and those with lower rather than higher incomes,⁶ it is important to characterize psychotherapy trends across a wide range of sociodemographic groups.

The social isolation, stress, and economic disruptions generated by the COVID-19 pandemic⁷ have contributed to an increase in outpatient mental health care by US adults.^{2,8} During the pandemic, there was a rapid expansion of telemental health care.⁹⁻¹¹ For many people, mental health care delivered via the internet offers a convenient, flexible, and less stigmatizing alternative to in-person care. Nevertheless, concern exists that several groups, including those with more serious mental health problems,^{2,9} older adults,^{2,12} people with lower incomes,^{2,13,14} and some racial and ethnic minoritized groups^{2,12} have not benefited proportionally from the recent expansion of telemental health care. Some patient barriers to telemental health care include technological challenges, preferences for in-person care, low digital literacy, financial constraints, and a lack of broadband access.^{9,15} Because of the farreaching psychological and social impacts of the COVID-19 pandemic,¹⁶ together with the emergence of telemental health, there is increased concern over the possibility that recent trends in outpatient psychotherapy may have perpetuated or even deepened historical disparities in access to care.¹⁷⁻¹⁹

In this study, we evaluated national trends in the rate of psychotherapy use across sociodemographic groups and levels of psychological distress. We analyzed data from annual nationally representative surveys of the civilian noninstitutionalized adult population to characterize the recent overall national increase in psychotherapy use, including a focus on groups that have historically been at increased risk of having untreated mental health disorders.²⁰ Because of concerns over equity of access to video telehealth,¹⁷ we also characterized patterns

Key Points

Question How have US psychotherapy use patterns changed between 2018 and 2021?

Findings In this repeated cross-sectional study among 89 619 adults, significant psychotherapy increases occurred for adults with mild or moderate but not serious distress, younger but not older adults, females but not males, college educated but not less than college educated adults, individuals with higher but not lower family incomes, and privately insured but not publicly insured or uninsured persons. In 2021, individuals who had a higher income, were employed, and were college educated had significantly higher teletherapy use than their counterparts.

Meaning These findings suggest that recent increases in psychotherapy use, which coincided with teletherapy expansion, preferentially occurred among socioeconomically advantaged adults with mild or moderate distress.

of video-based psychotherapy (teletherapy) use across sociodemographic groups and levels of psychological distress.

Methods

Data Source

Due to use of deidentified data, this repeated cross-sectional study was exempted from human participant review by the New York State Psychiatric Institute Institutional Review Board. Oral consent was provided by Medical Expenditure Panel Surveys (MEPS) participants. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline for observational studies was followed except that the study design was not included in the title. The 2018 to 2021 MEPS, conducted by the Agency for Healthcare Research and Quality, produce nationally representative estimates of service use by the civilian noninstitutionalized population. The surveys use an overlapping panel design. New, nationally representative household samples are selected each year and are interviewed 5 times over 2 years. During the COVID-19 pandemic, this schedule was temporarily extended for 2 panels to 9 rounds over 4 years. Detailed information concerning fielding of the survey and nonresponse adjustment are provided elsewhere.^{21,22} With respondent oral consent, English and Spanish survey versions were administered via computer-assisted personal interviews. This study includes all survey participants aged 18 years or older from the 2018 through 2021 surveys; 2021 is the first full year of MEPS with information on telehealth.

Psychotherapy and Other Mental Health Services

The MEPS asked respondents the type of care provided during each outpatient visit. Psychotherapy or counseling was defined as "a treatment technique for certain forms of mental disorders relying principally on talk/conversation between the mental health professional and the patient." It included "individual, family, and/or group therapies." Visits for psychotherapy or

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mental health counseling are considered psychotherapy visits. In 2021, each visit was categorized by service modality: inperson, telephone, and video (teletherapy) modalities.²³ In this study, the primary outcome was a dichotomous (yes or no) variable representing any use of psychotherapy, including in-person, telephone, and video teletherapy visits, during the survey year.

Psychological Distress

The Kessler-6 (K6), which measures psychological distress, evaluates past 30-day frequency of feeling: so sad that nothing could cheer the individual up; nervous, restless, or fidgety; hopeless; that everything was an effort; and worthless (4 = all; 3 = most; 2 = some; 1 = a little; 0 = none of the time).A score of 13 or more defined serious psychological distress,²⁴ while 1 to 12 defined mild to moderate distress and 0 defined no distress.²⁵ Total K6 scores are strongly correlated with Patient Health Questionnaire-2 (0.807) and Short Form-12 Mental Health Subscale (0.750) scores.²⁶ The K6 serious distress cut point has a classification accuracy (standard error) of 0.92 (0.02) for severe mental illnesses.²⁷ Receiver operating characteristic curve analyses reveal that the area under the curve for the K6 (0.86) compares favorably with that of Composite International Diagnostic Interview Short-Form (0.76) scales.²⁸

Other Characteristics

Following US Census definitions, 3 age groups were defined: younger (18-34 years), middle-age (35-64 years), and older (≥65 years) adults.^{29,30} Other sociodemographic characteristics included sex; race and ethnicity (as reported by household respondents); current marital status; highest level of education; annual family income in multiples of the federal poverty level (FPL)³¹; health insurance hierarchically classified as any private insurance, any public insurance, or none; employment status; and residence defined as within a metropolitan (urban) or nonmetropolitan (rural) county. Race options in the surveys included American Indian or Alaska Native, Asian Indian, Black or African American, Chinese, Filipino, Guamanian or Chamorro, Japanese, Korean, Native Hawaiian, other Asian, Other Pacific Islander, Samoan, Vietnamese, White, and other race. Ethnicity options in the surveys included Hispanic (Central or South American; Cuban or Cuban American; Dominican; Mexican American or Chicano; Puerto Rican; Mexican; other Hispanic, Latino, or Spanish; and other Latin American) and not Hispanic. In this study, the other, non-Hispanic group included all non-Hispanic participants who endorsed race options other than Black or African American or White and included multiple races (participants could choose multiple race and ethnicity categories). Race and ethnicity were evaluated in this analysis because of prior evidence of racial and ethnic disparities in psychotherapy use.³⁹ Public health insurance included Medicare, Medicaid or the State Children's Health Insurance Program (SCHIP), Indian Health Service insurance, and military health care, such as Tricare, Civilian Health and Medical Program of the Department of Veterans (CHAMPVA), or VA coverage. Use of psychotherapy was also stratified by psychological distress level.

Statistical Analysis

For each survey year, we determined percentages of persons using psychotherapy stratified by each sociodemographic characteristic. Logistic regression models with predictive marginal means were used to test for differences adjusted for age, sex, and distress level in the percentage of adults with psychotherapy over the 2018 to 2021 study period (period outcome). Interaction terms (sociodemographic group × study period) were added to evaluate whether trends in psychotherapy use significantly varied over the 2018 to 2021 period across levels of individual sociodemographic characteristics. Similar logit models with predictive margins were performed for 3 levels of psychological distress overall and stratified by sex and age group. Stepped logistic regressions were then fit with the 2021 MEPS data and any psychotherapy use as the dependent variable. After unadjusted regressions, psychological distress level was stepped in, followed by the sociodemographic variables (age, sex, race and ethnicity, marital status, education, income, health insurance, employment, and residence). Similar regressions were fit with use of any teletherapy as the dependent variable. In supplementary analyses, odds ratios for logistic regressions were determined, in which the independent variable of interest was the interaction between the 2021 survey year and the group of interest. Because no adjustments were made for multiple comparisons (2-sided α = .05), CIs should be interpreted with caution.

All analyses were performed using R statistical software version 4.2.0 (R Project for Statistical Computing). Analyses were corrected for the complex multistage clustered and stratified design of the MEPS using the survey library, which also account for the repeated observations in the sample.^{32,33} Data were analyzed from March to August 2024.

Results

Trends in Psychotherapy

The analysis involved 89619 participants (47838 female [51.5%] and 41781 male [48.5%]; 22 510 aged 18-34 years [29.0%], 43 371 aged 35-64 years [48.8%], and 23 738 aged ≥65 years [22.2%]; 12 864 Black [12.0%], 18 956 Hispanic [16.7%], 50 350 White [62.2%], and 7449 other non-Hispanic [9.2%]). After controlling for age, sex, and level of distress, we observed a significant increase in use of psychotherapy from 2018 to 2021 among younger (ages 18-24 years: difference, 3.0 percentage points; 95% CI, 1.3-4.7 percentage points) and middleaged (ages 35-64 years: difference, 1.4 percentage points; 95% CI, 0.3-2.4 percentage points) adults, females (difference, 2.5 percentage points; 95% CI, 1.3-3.6 percentage points), all racial and ethnic groups except the other group (eg, Black adults: difference, 2.7 percentage points; 95% CI, 0.6-4.8 percentage points), and each marital status group (eg, married adults: difference, 1.7 percentage points; 95% CI, 0.6-2.7 percentage points). We also found that psychotherapy use significantly increased among college graduates (difference, 3.5 percentage points; 95% CI, 2.2-4.9 percentage points), individuals in the 2 higher income groups (eg, >400% of the FPL: difference, 2.0 percentage points; 95% CI, 0.8-3.2 percentage points),

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privately insured adults (difference, 2.2 percentage points; 95% CI, 1.2-3.2 percentage points), employed persons (difference, 2.5 percentage points; 95% CI, 1.5-3.4 percentage points), and residents of urban areas (difference, 1.9 percentage points; 95% CI, 1.1-2.8 percentage points) (Table 1). No sociodemographic groups experienced a significant decline in psychotherapy use. After controlling for the potentially confounding effects of age, sex, and distress level, the increase in psychotherapy use from 2018 to 2021 was significantly greater for younger (455/ 6149 individuals [8.0%] to 602/5296 individuals [11.9%] aged 18-34 years) than older (217/5550 individuals [3.6%] to 304/ 6708 individuals [4.6%] aged ≥65 years) adults, females (931/ 12 270 females [7.7%] to 1207/12 237 females [10.5%]) than males (547/10741 males [5.2%] to 655/10544 males [6.3%]), college graduates (503/6456 adults [7.6%] to 810/7277 adults [11.4%]) than those without a high school diploma (193/3824 adults [5.5%] to 200/3593 adults [7.0%]), employed adults (733/13358 adults [5.7%] to 1082/12365 adults [8.9%]) than unemployed adults aged 65 years and younger (547/5138 adults [10.8%] to 519/4905 adults [10.5%]), urban (1335/ 20 682 adults [6.5%] to 1729/20 590 adults [8.7%]) than rural (143/2329 adults [6.4%] to 133/2191 adults [5.9%]) residents, privately insured (881/14 387 adults [6.1%] to 1154/13 414 adults [8.9%]) than publicly insured (558/6511 adults [8.8%] to 659/ 7453 adults [8.8%]) individuals, and adults at 2 to 4 times the FPL (370/6670 adults [5.7%] to 488/6370 adults [8.2%]) than below the FPL (384/4495 adults [9.7%] to 428/4760 adults [10.0%]). Results are presented as odds ratios with 95% CIs in eTable 1 in Supplement 1.

As expected, the rate of psychotherapy use was highest among adults with serious distress, intermediate among those with mild or moderate distress, and lowest among those with no distress. During the study period, we detected a significant increase in psychotherapy among adults with mild to moderate distress (difference, 2.7 percentage points; 95% CI, 1.5-3.9 percentage points) but not among adults with serious distress or no distress (Table 2). In stratified analyses, there were similar significant increases in psychotherapy use from 2018 to 2021 in adults with mild to moderate distress among females (difference, 3.8 percentage points; 95% CI, 2.1-5.5 percentage points), younger adults (ages 18-24 years: difference: 4.3 percentage points; 95% CI, 1.8-6.8 percentage points), and middle-aged adults (difference, 2.2 percentage points; 95% CI, 0.6-3.8 percentage points) but not among males or older adults. Odds ratios with 95% CIs are presented in eTable 2 in Supplement 1.

Patterns of Any Psychotherapy Use

In 2021, use of psychotherapy was highest among young adults (602/5296 adults aged 18-24 years [11.9%]), followed by middleaged adults (956/10 777 adults aged 35-64 years [8.3%]), and lowest among older adults (304/6708 adults aged ≥65 years [4.6%]) (**Table 3**). These differences were also evident in distress-adjusted and fully adjusted models. Psychotherapy use was also higher among females than males in all 3 models (eg, distress-adjusted difference, 3.6 percentage points; 95% CI, 2.4 to 4.8 percentage points). White non-Hispanic adults also had higher rates of psychotherapy use than Black non-Hispanic (difference, -2.6 percentage points; 95% CI, -4.0 to -1.2 percentage points), Hispanic (difference, -3.9 percentage points; -5.0 to -2.8 percentage points), and non-Hispanic adults with other race or ethnicity (difference, -3.1 percentage points; 95% CI, -4.7 to -1.6 percentage points) in unadjusted analyses. White non-Hispanic adults also had higher rates of psychotherapy use than Hispanic individuals in distress-adjusted and fully adjusted models and higher than non-Hispanic adults with other race or ethnicity, including multiple races, in the fully adjusted model.

Adults who were not married and those who were separated, divorced, or widowed had significantly higher psychotherapy use than married adults in all 3 models. In each model, college graduates compared with people who did not complete high school also had higher psychotherapy use. In the unadjusted model but not in adjusted models, individuals in the lowest income group had higher psychotherapy use than those in the 2 middle income groups. Across all 3 models, privately insured adults had higher psychotherapy use than uninsured individuals, but there were no differences between privately and publicly insured people. In each model, urban residents had significantly higher psychotherapy use than rural residents. In the unadjusted analysis, psychotherapy use was higher among unemployed adults aged 65 years or younger than employed adults but lower among older unemployed adults than employed adults. In the distress-adjusted analysis, employed adults also had higher psychotherapy use than older unemployed individuals.

As anticipated, psychotherapy use was highest among adults with serious distress, intermediate for those with mild or moderate distress, and lowest for those with no distress in unadjusted and fully adjusted models. Odds ratios with 95% CIs are presented in eTable 3 in Supplement 1.

Patterns of Teletherapy Use

In 2021, 689 of 1862 adults who used psychotherapy (39.9%) had 1 or more teletherapy visits (eTable 4 in Supplement 1). When the dependent variable was narrowed to the use of teletherapy, overall patterns (Table 4) generally resembled those in the analysis of all psychotherapy use (Table 3). After controlling for distress level, teletherapy use was significantly higher among younger than middle-aged (aged 35-64 years: difference, -3.7 percentage points; 95% CI, -5.1 to -2.3) or older (aged ≥65 years: difference, -6.5 percentage points; 95% CI, -8.0 to -5.0 percentage points) adults, females (difference, 1.9 percentage points; 95% CI, 0.9 to 2.9 percentage points) than males, not married (difference, 2.9 percentage points; 95% CI, 1.6 to 4.2 percentage points) than married persons, college educated adults (difference, 4.9 percentage points; 95% CI, 3.3 to 6.4 percentage points) than those without a high school diploma, people with higher (eg, 400% vs <100% of the FPL: difference, 2.3 percentage points; 95% CI, 1.2 to 3.5 percentage points) than lower incomes, privately than publicly (difference, -2.5 percentage points; 95% CI, -3.4 to -1.5 percentage points) insured persons, and urban (difference, 2.7 percentage points; 95% CI, 1.5 to 3.8 percentage points) than rural residents. However, there were some key exceptions. Specifically, no associations of racial or ethnic background with

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Table 1. Trends in the Percentage of Adults Receiving Psychotherapy

Adults, No./total No. (%) (N = 89 619) ^a		Difference (95% CI), percentage points ^b		P value for			
Variable	2018	2019	2020	2021	Age and sex adjusted ^c	Age, sex, and distress adjusted ^d	age, sex, and distress-adjusted interaction
Age, y							
18-34	455/6149 (8.0)	504/5642 (9.5)	517/5423 (10.6)	602/5296 (11.9)	3.9 (2.5 to 5.4)	3.0 (1.3 to 4.7)	Reference
35-64	806/11 312 (6.8)	884/10735 (8.3)	826/10 547 (8.2)	956/10777 (8.3)	1.5 (0.5 to 2.4)	1.4 (0.3 to 2.4)	.08
≥65	217/5550 (3.6)	257/5576 (4.9)	238/5904 (4.0)	304/6708 (4.6)	1.0 (0.2 to 1.8)	0.9 (-0.0 to 1.8)	.03
Sex							
Female	931/12 270 (7.7)	1032/11 667 (9.6)	1021/11 664 (9.8)	1207/12237 (10.5)	2.9 (1.9 to 3.8)	2.5 (1.3 to 3.6)	.04
Male	547/10741 (5.2)	613/10286(6.1)	560/10210(6.0)	655/10 544 (6.3)	1.2 (0.4 to 2.0)	0.9 (-0.0 to 1.8)	
Race and ethnicity							
Black, non-Hispanic	185/3400 (5.4)	196/3128 (6.5)	180/3065 (6.4)	221/3271 (7.1)	1.7 (0.2 to 3.1)	2.7 (0.6 to 4.8)	.33
Hispanic	204/4860 (4.1)	209/4456 (5.1)	222/4788 (5.3)	256/4852 (5.8)	1.6 (0.5 to 2.7)	1.9 (0.5 to 3.4)	.63
White, non-Hispanic	997/12 795 (7.5)	1124/12531 (9.1)	1075/12217 (9.3)	1253/12807 (9.8)	2.4 (1.4 to 3.4)	1.5 (0.4 to 2.5)	Reference
Other, non-Hispanic ^e	92/1956 (4.8)	116/1838 (6.9)	104/1804 (6.0)	132/1851 (6.6)	1.7 (0.1 to 3.3)	2.2 (0.0 to 4.3)	.54
Marital status							
Married	550/11 504 (4.6)	644/10950(6.2)	606/10436(6.5)	676/10 526 (6.7)	2.2 (1.3 to 3.1)	1.7 (0.6 to 2.7)	Reference
Separated, divorced, or widowed	401/5125 (7.7)	435/4927 (9.4)	414/5250 (8.1)	516/5866 (8.8)	1.4 (0.0 to 2.9)	1.6 (0.1 to 3.2)	.86
Not married	527/6377 (8.9)	566/6071 (10.0)	561/6180 (10.5)	670/6378 (11.3)	2.2 (1.0 to 3.4)	1.9 (0.5 to 3.3)	.78
Education, highest grade							
<high school<br="">graduate</high>	193/3824 (5.5)	198/3389 (6.5)	191/3488 (6.2)	200/3593 (7.0)	1.3 (-0.2 to 2.8)	0.9 (-1.3 to 3.0)	Reference
High school graduate	782/12731 (6.0)	828/12094 (7.0)	720/11625 (6.6)	852/11911 (6.9)	1.0 (0.2 to 1.8)	0.5 (-0.3 to 1.3)	.78
College graduate	503/6456 (7.6)	619/6470 (10.0)	670/6761 (10.7)	810/7277 (11.4)	3.9 (2.6 to 5.1)	3.5 (2.2 to 4.9)	.02
Income level % FPL							
<100	384/4495 (9.7)	366/4165 (9.8)	350/4219 (10.0)	428/4760 (10.0)	0.5 (-1.2 to 2.2)	0.2 (-1.5 to 1.8)	Reference
100-200	197/3255 (6.5)	196/3058 (6.7)	211/3076 (7.2)	213/3040 (6.9)	0.4 (-1.1 to 2.0)	0.4 (-1.3 to 2.2)	.83
201-400	370/6670 (5.7)	437/6296 (7.1)	380/6049 (6.8)	488/6370 (8.2)	2.5 (1.5 to 3.6)	2.6 (1.2 to 4.0)	.02
>400	527/8591 (5.9)	646/8434 (8.1)	640/8530 (8.1)	733/8611 (8.6)	2.7 (1.6 to 3.8)	2.0 (0.8 to 3.2)	.06
100-200 197/3233 (0.3) 196/3038 (0.7) 211/3078 (7.2) 213/3040 (0.9) 0.4 (-1.1 to 2.0) 0.4 (-1.1 to 2.0)							
Private, any	881/14 387 (6.1)	1035/13 642 (8.0)	981/13 150 (8.4)	1154/13 414 (8.9)	2.7 (1.9 to 3.5)	2.2 (1.2 to 3.2)	Reference
Public, only	558/6511 (8.8)	567/6393 (9.3)	561/6700 (8.4)	659/7453 (8.8)	0.1 (-1.4 to 1.6)	0.2 (-1.2 to 1.6)	.02
None	39/2113 (2.1)	43/1918 (2.4)	39/2024 (2.6)	49/1914 (3.1)	0.8 (-0.5 to 2.2)	1.4 (-0.3 to 3.1)	.45
Employment							
Employed	733/13 358 (5.7)	865/12521(7.6)	848/11878 (8.0)	1082/12 365 (8.9)	2.9 (2.1 to 3.7)	2.5 (1.5 to 3.4)	Reference
Unemployed, ≤65 y	547/5138 (10.8)	566/4890 (11.6)	521/5104 (10.9)	519/4905 (10.5)	-0.2 (-1.6 to 1.2)	0.0 (-1.5 to 1.4)	.002
Unemployed, >65 y	198/4515 (4.1)	214/4542 (4.8)	212/4892 (4.4)	261/5511 (4.9)	1.4 (-0.3 to 3.1)	0.8 (-0.8 to 2.5)	.09
Residence							
Urban	1335/20682 (6.5)	1485/19693 (8.0)	1460/19752 (8.1)	1729/20 590 (8.7)	2.3 (1.6 to 3.0)	1.9 (1.1 to 2.8)	.01
Rural	143/2329 (6.4)	160/2260 (6.9)	121/2122 (6.3)	133/2191 (5.9)	-0.3 (-2.4 to 1.7)	-0.5 (-2.2 to 1.2)	
Abbreviation: FPL, federal poverty level. ^a Data are from Medical Expenditure Panel Surveys. Percentages are based on sample weights.			 ^d Difference between 2021 and 2018 controlled for age, sex, and level of psychological distress. ^e Other non-Hispanic race includes American Indian or Alaska Native, Acian Indian, Chinese Filipine, Cumpanian or Chameres, Jacobie Martine, Jacobie Ma				

^b Adjusted regressions compare percentages of adults with any psychotherapy use in 2021 with those in 2018 (reference).

^c Difference between 2021 and 2018 controlled for age and sex.

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Native Hawaiian, other Asian, Other Pacific Islander, Samoan, Vietnamese,

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and other.

Table 2. Trends in Psychol	therapy by Level	of Distress			
	Adults, No./to	Adjusted difference — (95% CI),			
Variable ^a	2018	2019	2020	2021	percentage points ^c
Total					
Serious psychological	220/784	213/722	183/633	219/710	2.1 (-3.1 to 7.3)
distress	(29.0)	(31.8)	(32.4)	(31.2)	
Mild to moderate	889/10275	949/9603	786/8265	941/8784	2.7 (1.5 to 3.9)
psychological distress	(8.6)	(10.3)	(10.3)	(11.2)	
No psychological	151/7557	143/6669	99/4938	120/5510	0.3 (-0.4 to 0.9)
distress	(2.0)	(2.4)	(2.1)	(2.3)	
By age, y					
18-34					
Serious psychological	54/191	54/144	53/151	57/158	4.2 (-7.2 to 15.6)
distress	(30.9)	(37.5)	(39.9)	(35.1)	
Mild to moderate	277/2568	290/2353	227/1654	290/1780	4.3 (1.8 to 6.8)
psychological distress	(10.9)	(12.8)	(13.5)	(15.3)	
No psychological	42/1934	42/1552	22/920	27/953	0.7 (-0.7 to 2.1)
distress	(2.1)	(3.3)	(2.2)	(2.7)	
35-64					
Serious psychological	142/417	129/413	104/324	135/367	1.3 (-6.7 to 9.3)
distress	(33.8)	(33.6)	(32.4)	(35.1)	
Mild to moderate	476/5075	514/4658	425/4068	478/4069	2.2 (0.6 to 3.8)
psychological distress	(8.8)	(10.8)	(10.6)	(11.0)	
No psychological	87/3817	64/3417	47/2347	68/2620	0.1 (-0.7 to 1.0)
distress	(2.4)	(1.9)	(2.2)	(2.5)	
≥65					
Serious psychological	24/176	30/165	26/158	27/185	0.2 (-7.1 to 7.6)
distress	(12.8)	(18.3)	(17.6)	(13.0)	
Mild to moderate	136/2632	145/2592	134/2543	173/2935	1.4 (-0.0 to 2.8)
psychological distress	(4.8)	(5.9)	(5.2)	(6.2)	
No psychological	22/1806	37/1700	30/1671	25/1937	0.2 (-0.6 to 0.9)
distress	(1.1)	(2.5)	(1.7)	(1.3)	
By sex					
Female					
Serious psychological	155/489	138/445	127/417	147/449	-0.8 (-7.7 to 6.0)
distress	(32.5)	(33.0)	(33.5)	(31.5)	
Mild to moderate	549/5795	586/5364	512/4764	621/5026	3.8 (2.1 to 5.5)
psychological distress	(9.8)	(11.7)	(11.8)	(13.6)	
No psychological	91/3776	97/3330	67/2436	76/2759	0.6 (-0.5 to 1.8)
distress	(2.5)	(3.2)	(3.1)	(3.1)	
Male					
Serious psychological	65/295	75/277	56/216	72/261	6.0 (-2.3 to 14.3)
distress	(23.7)	(30.0)	(30.7)	(30.9)	
Mild to moderate	340/4480	363/4239	274/3501	320/3758	1.3 (-0.2 to 2.8)
psychological distress	(7.2)	(8.7)	(8.5)	(8.5)	
No psychological	60/3781	46/3339	32/2502	44/2751	0.0 (-0.7 to 0.6)

teletherapy use were observed in the analysis. When the outcome was use of teletherapy, significant differences in psychotherapy use were also no longer apparent between married and separated, divorced, or widowed people. However, publicly insured adults were less likely than privately insured individuals to use teletherapy in unadjusted and distressadjusted analyses of teletherapy but not in the fully adjusted analysis. Results are presented as odds ratios with 95% CIs in

Discussion

eTable 5 in Supplement 1.

This population-based repeated cross-sectional study of psychotherapy trends revealed substantial and increasing national disparities in psychotherapy access across sociodemographic groups. Over the last few years, use of psychotherapy increased significantly more rapidly among younger than older adults, females than males, college graduates than those without a high school diploma, adults with higher than lower income levels, employed than unemployed individuals, and urban than rural residents. A significant increase in use of psychotherapy also occurred among adults with mild or moderate distress but not those with serious distress. These trends, some of which were reflected in cross-sectional patterns of psychotherapy use including teletherapy, highlight the importance of implementing clinical interventions and health care policies to broaden psychotherapy access to underserved groups. In this discussion, we focus on patterns in video teletherapy and psychotherapy trends across socioeconomic and

^a Level of psychological distress was defined by Kessler-6 score (serious: \geq 13; mild to moderate:

^b Data are from Medical Expenditure Panel Surveys and are presented as annualized percentages, which are based on sample weights. ^c Percentage point differences represent adjusted differences in use of psychotherapy between 2021 and 2018. Outcomes by age are adjusted for sex, and outcomes by sex are adjusted for age. Top 3 total rows were adjusted by age and sex.

1-12; none: 0).

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Variable		Adults with 2021	Difference (95% CI), percentage points			
		No./total No. (%) ^a	Unadjusted ^b	Distress adjusted ^c	Fully adjusted ^d	
Age, y						
	18-34	602/5296 (11.9)	0 [Reference]	0 [Reference]	0 [Reference]	
	35-64	956/10777 (8.3)	-3.6 (-4.9 to -2.3)	-2.6 (-4.3 to -1.0)	-2.1 (-3.5 to -0.6)	
	≥65	304/6708 (4.6)	-7.3 (-8.6 to -6.0)	-6.8 (-8.5 to -5.1)	-5.6 (-7.8 to -3.4)	
Se	2X					
	Female	1207/12 237 (10.5)	4.2 (3.2 to 5.1)	3.6 (2.4 to 4.8)	2.2 (1.3 to 3.0)	
	Male	655/10 544 (6.3)	0 [Reference]	0 [Reference]	0 [Reference]	
Ra	ace and ethnicity					
	Black, non-Hispanic	221/3271 (7.1)	-2.6 (-4.0 to -1.2)	0.2 (-1.8 to 2.3)	-0.8 (-2.2 to 0.5)	
	Hispanic	256/4852 (5.8)	-3.9 (-5.0 to -2.8)	-2.1 (-3.5 to -0.6)	-1.7 (-2.7 to -0.6)	
	White, non-Hispanic	1253/12 807 (9.8)	0 [Reference]	0 [Reference]	0 [Reference]	
	Other, non-Hispanic ^e	132/1851 (6.6)	-3.1 (-4.7 to -1.6)	-1.8 (-3.7 to 0.2)	-2.0 (-3.2 to -0.9)	
M	arital status					
	Married	676/10526(6.7)	0 [Reference]	0 [Reference]	0 [Reference]	
	Separated, divorced, or widowed	516/5866 (8.8)	2.1 (1.0 to 3.3)	1.6 (0.1 to 3.0)	2.5 (1.4 to 3.6)	
	Not married	670/6378 (11.3)	4.6 (3.3 to 6.0)	4.1 (2.4 to 5.7)	2.2 (1.1 to 3.4)	
Ed	lucation, highest grade					
	<high graduate<="" school="" td=""><td>200/3593 (7.0)</td><td>0 [Reference]</td><td>0 [Reference]</td><td>0 [Reference]</td></high>	200/3593 (7.0)	0 [Reference]	0 [Reference]	0 [Reference]	
	High school graduate	852/11911 (6.9)	-0.1 (-1.6 to 1.3)	-0.2 (-2.2 to 1.8)	0.3 (-1.0 to 1.5)	
	College graduate	810/7277 (11.4)	4.4 (2.7 to 6.0)	5.0 (2.9 to 7.2)	4.4 (2.9 to 6.0)	
In	come level % FPL					
	<100	428/4760 (10.0)	0 [Reference]	0 [Reference]	0 [Reference]	
	100-200	213/3040 (6.9)	-3.1 (-5.0 to -1.2)	-1.7 (-3.7 to 0.3)	-0.5 (-2.0 to 1.0)	
	201-400	488/6370 (8.2)	-1.8 (-3.5 to -0.2)	-0.1 (-2.0 to 1.8)	0.2 (-1.3 to 1.8)	
	>400	733/8611 (8.6)	-1.4 (-3.0 to 0.1)	0.2 (-1.4 to 1.8)	-0.2 (-1.7 to 1.3)	
Health insurance						
	Private, any	1154/13 414 (8.9)	0 [Reference]	0 [Reference]	0 [Reference]	
	Public, only	659/7453 (8.8)	-0.2 (-1.3 to 0.9)	-0.8 (-2.2 to 0.6)	1.1 (-0.3 to 2.5)	
	None	49/1914 (3.1)	-5.9 (-7.3 to -4.4)	-5.5 (-7.5 to -3.5)	-3.0 (-4.4 to -1.7)	
Er	nployment					
	Employed	1082/12 365 (8.9)	0 [Reference]	0 [Reference]	0 [Reference]	
	Unemployed, ≤65 y	519/4905 (10.5)	1.6 (0.4 to 2.9)	0.8 (-0.7 to 2.3)	1.1 (0.0 to 2.2)	
	Unemployed, >65 y	261/5511 (4.9)	-4.0 (-5.0 to -3.0)	-4.7 (-6.0 to -3.3)	0.3 (-1.8 to 2.4)	
Re	esidence					
	Urban	1729/20 590 (8.7)	2.9 (1.0 to 4.8)	4.0 (2.5 to 5.5)	2.2 (1.2 to 3.2)	
	Rural	133/2191 (5.9)	0 [Reference]	0 [Reference]	0 [Reference]	
Le di	evel of psychological stress ^f					
	Serious	219/710 (31.2)	0 [Reference]	0 [Reference]	0 [Reference]	
	Mild to moderate	941/8784 (11.2)	-20.0 (-24.5 to -15.5)	NA	-17.7 (-22.0 to -13.4)	
	None	120/5510 (2.3)	-29.0 (-33.4 to -24.6)	NA	-23.9 (-28.1 to -19.7)	

Table 3. Differences in Percentages of Psychotherapy Use by Sociodemographic and Distress Group

Abbreviations: FPL, federal poverty level; NA, not applicable.

^a Data are from 2021 Medical Expenditure Panel Survey. Percentages are based on sample weights.

^b Unadjusted differences in rate of any psychotherapy use.

^c Psychological distress-adjusted differences in rate of any psychotherapy use.

^d Differences in rate of any psychotherapy use adjusted for all variables listed in the table.

^e Other non-Hispanic race includes American Indian or Alaska Native, Asian Indian, Chinese, Filipino, Guamanian or Chamorro, Japanese, Korean, Native Hawaiian, other Asian, Other Pacific Islander, Samoan, Vietnamese, and other.

^f Level of psychological distress was based on the Kessler-6 scale, with scores of 13 or greater defined as serious, 1 to 12 defined as mild to moderate, and 0 defined as no distress.

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	Adults with 2021 video-based				
	use, No./total	Difference (95% CI), percentage points			
Variable	No. (%) ^a	Unadjusted ^b	Distress adjusted ^c	Fully adjusted ^d	
Age, y					
18-34	290/5296 (8.3)	0 [Reference]	0 [Reference]	0 [Reference]	
35-64	334/10777 (3.9)	-4.3 (-5.6 to -3.0)	-3.7 (-5.1 to -2.3)	-2.4 (-3.8 to -1.0)	
≥65	74/6708 (1.2)	-7.1 (-8.5 to -5.8)	-6.5 (-8.0 to -5.0)	-3.9 (-5.9 to -1.9)	
Sex					
Female	465/12237(5.2)	2.0 (1.3 to 2.8)	1.9 (0.9 to 2.9)	0.8 (0.3 to 1.3)	
Male	233/10 544 (3.2)	0 [Reference]	0 [Reference]	0 [Reference]	
Race and ethnicity					
Black, non-Hispanic	72/3271 (4.0)	-0.3 (-1.7 to 1.0)	0.6 (-1.4 to 2.6)	-0.0 (-0.9 to 0.8)	
Hispanic	96/4852 (4.1)	-0.2 (-1.3 to 0.8)	-0.1 (-1.6 to 1.4)	-0.2 (-0.9 to 0.6)	
White, non-Hispanic	466/12807 (4.4)	0 [Reference]	0 [Reference]	0 [Reference]	
Other, non-Hispanic ^e	64/1851 (4.1)	-0.3 (-1.6 to 1.0)	0.5 (-1.0 to 2.0)	-0.3 (-0.9 to 0.3)	
Marital Status					
Married	271/10 526 (3.3)	0 [Reference]	0 [Reference]	0 [Reference]	
Separated, divorced, and widowed	137/5866 (3.3)	0.0 (-0.9 to 0.9)	-0.7 (-1.8 to 0.3)	0.7 (0.0 to 1.3)	
Not married	290/6378 (7.1)	3.8 (2.7 to 5.0)	2.9 (1.6 to 4.2)	0.9 (0.3 to 1.6)	
Education, highest grade					
<high graduate<="" school="" td=""><td>48/3593 (2.7)</td><td>0 [Reference]</td><td>0 [Reference]</td><td>0 [Reference]</td></high>	48/3593 (2.7)	0 [Reference]	0 [Reference]	0 [Reference]	
High school graduate	260/11911 (2.8)	0.1 (-0.9 to 1.2)	0.4 (-0.8 to 1.6)	0.4 (-0.2 to 0.9)	
College graduate	390/7277 (6.7)	4.0 (2.7 to 5.3)	4.9 (3.3 to 6.4)	2.6 (1.7 to 3.4)	
Income level % FPL					
<100	107/4760 (3.7)	0 [Reference]	0 [Reference]	0 [Reference]	
100-200	56/3040 (2.9)	-0.8 (-2.0 to 0.5)	-0.4 (-1.5 to 0.8)	-0.1 (-0.8 to 0.5)	
201-400	190/6370 (4.3)	0.6 (-0.4 to 1.6)	2.1 (0.9 to 3.2)	0.8 (0.1 to 1.5)	
>400	345/8611 (4.9)	1.0 (0.0 to 2.1)	2.3 (1.2 to 3.5)	0.6 (-0.1 to 1.3)	
Health insurance					
Private, any	512/13 414 (4.8)	0 [Reference]	0 [Reference]	0 [Reference]	
Public, only	171/7453 (2.9)	-1.9 (-2.8 to -1.1)	-2.5 (-3.4 to -1.5)	0.0 (-0.6 to 0.7)	
None	15/1914 (2.7)	-2.2 (-4.3 to -0.1)	-1.7 (-4.4 to 1.0)	-0.4 (-1.6 to 0.9)	
Employment					
Employed	490/12 365 (5.3)	0 [Reference]	0 [Reference]	0 [Reference]	
Unemployed, ≤65 y	150/4905 (4.6)	-0.7 (-1.9 to 0.5)	-1.2 (-2.5 to 0.1)	0.4 (-0.3 to 1.0)	
Unemployed, >65 y	58/5511 (1.1)	-4.1 (-4.9 to -3.4)	-4.2 (-5.2 to -3.2)	-0.2 (-1.4 to 1.0)	
Residence					
Urban	665/20590(4.5)	2.4 (1.3 to 3.5)	2.7 (1.5 to 3.8)	0.8 (0.2 to 1.5)	
Rural	33/2191 (2.1)	0 [Reference]	0 [Reference]	0 [Reference]	
Level of psychological distress ^f					
Serious	70/710 (13.9)	0 [Reference]	0 [Reference]	0 [Reference]	
Mild to moderate	363/8784 (5.3)	-8.6 (-12.5 to -4.7)	NA	-6.3 (-9.0 to -3.6)	
None	41/5510 (1.1)	-12.8 (-16.7 to	NA	-8.2 (-10.9 to -5.6)	

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> Abbreviations: FPL, federal poverty level; NA, not applicable.

- ^a Data are from 2021 Medical Expenditure Panel Survey. Percentages are based on sample weights.
- ^b Unadjusted differences in rate of any video-based psychotherapy use.
- ^c Psychological distress-adjusted differences in rate of any video-based psychotherapy use.
- ^d Differences in rate of any psychotherapy use adjusted for all variables listed in the table.
- ^e Other non-Hispanic race includes American Indian or Alaska Native, Asian Indian, Chinese, Filipino, Guamanian or Chamorro, Japanese, Korean, Native Hawaiian, other Asian, Other Pacific Islander, Samoan, Vietnamese, and other.
- ^f Level of psychological distress was based on the Kessler-6 scale, with scores of 13 or greater defined as serious, 1 to 12 defined as mild to moderate, and O defined as no distress.

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Original Investigation Research

geographic gradients because of the increasing equity challenges they present rather than on psychotherapy trends by age, sex, or marital status.

Nearly 4 in 10 adults in 2021 who used outpatient psychotherapy in the US received 1 or more visits via teletherapy. While teletherapy is perceived as a convenient option that removes transportation barriers, increases privacy, and expands time flexibilities, concern has developed that older adults, less educated adults, and those with lower incomes may encounter technological challenges with accessing these services.¹⁷⁻¹⁹ Our findings support these concerns. After adjusting for level of distress, we found that older adults, those living in poverty, and those who did not complete high school were significantly less likely to use teletherapy than their younger, higher income, and more educated peers, respectively. Although information was not available on specific barriers to psychotherapy use, a lack of broadband access, social isolation, lower digital literacy, and a lack of friends to assist with technology challenges can impede use of telemental health care.¹⁵

Prior to the COVID-19 pandemic, telemental health services were often viewed as a means of increasing the supply of accessible mental health professionals in rural areas,³⁴ which have been persistently underserved.³⁵ However, despite the rapid expansion of telemental health care during the pandemic, teletherapy does not appear to have addressed this public health challenge. Psychotherapy use overall increased more rapidly among urban than rural residents, and rural residents were significantly less likely than their urban counterparts to receive teletherapy. These findings align with evidence that mental health specialists who shifted entirely to telemedicine disproportionately practiced in more affluent and population-dense counties.³⁶ Because broadband access declines as counties become more rural,³⁷ whether rural residents benefit from expansion of teletherapy will depend in part on improving the telecommunications infrastructure.

Greater mental health literacy among more highly educated adults³⁸ may help account for the observed association between education and use of psychotherapy, which has been previously reported.³⁹⁻⁴¹ Mental health literacy, which involves increased knowledge concerning the characteristics of mental health problems and their responsivity to treatment, has been associated with help-seeking after the onset of mental health problems.⁴² Because psychotherapy use in the US has recently increased more rapidly among college graduates than adults who did not graduate from high school, education may be becoming an increasingly important determinant of psychotherapy access. Interventions to promote knowledge of mental health and mental health service delivery could facilitate greater equity of psychotherapy access.⁴³

The behavior of psychotherapists may also contribute to socioeconomic disparities in use of psychotherapy. With the proliferation of teletherapy, psychotherapists can select and accept individuals from a larger pool of potential patients. Some psychotherapists may use this flexibility to select more highly educated people or those who are younger, have less than serious psychological distress, or have other readily ascertainable characteristics that therapists may associate with responsiveness to psychotherapy. Vignette research on the willingness of psychotherapists to offer treatment has generally⁴⁴⁻⁴⁶ but not uniformly⁴⁷ found that psychotherapists are more likely to offer treatment to adults from higher than lower socioeconomic backgrounds. Several studies have further reported that unemployment,^{48,49} lower education levels,^{48,50} and poverty^{51,52} are associated with dropout from psychotherapy. These findings highlight the critical importance of developing and implementing scalable psychotherapeutic interventions that are responsive to the needs of currently underserved groups.⁵³

A lack of insurance coverage and high costs are common barriers to seeking mental health care.⁵⁴ We found that compared with adults with higher income levels and private insurance, individuals with lower family income levels and without private health insurance were less likely to use teletherapy. Because insurance associations were not observed after controlling for income, public insurance programs may not be sufficient to counter adverse associations of low income levels with psychotherapy access. Low psychotherapy reimbursements by Medicaid⁵⁵ and commercial insurance⁵⁶ can deter psychotherapists from participating in insurance networks, contribute to local shortages,⁵⁷ and complicate efforts to locate an affordable psychotherapist for many US adults. Increasing reimbursement rates for time-limited, disorder-specific psychotherapies with demonstrated effectiveness in reducing symptoms for common conditions^{58,59} may provide a cost-effective means of expanding psychotherapy access.

Limitations

This study has several limitations. First, survey participants may have underreported psychotherapy use due to recall problems, stigma, or other factors. Second, information on use of teletherapy was available only in 2021, precluding characterization of trends. Third, several important groups, including unhoused individuals, nursing home residents, inmates in prisons or jails, and individuals in other institutional settings, were not represented. Fourth, the survey definition of psychotherapy was broad, spanning cognitive behavioral therapy to psychoanalysis, and types of available psychological treatments may have changed during the pandemic. Fifth, the analysis is focused on trends and patterns in the probability of any psychotherapy use and does not address other factors, such as the quantity and distribution of psychotherapy visits across groups, clinicians offering psychotherapy, concurrent psychotropic drug use, or expenditures for psychotherapy visits. Sixth, the COVID-19 pandemic may have impacted not only psychotherapy use, but also survey responses in 2020 and 2021. Seventh, no information was available on the effectiveness of the psychotherapy.

Conclusions

Ensuring that people in psychological distress have access to psychotherapy is a widely shared health care priority.^{60,61} However, this repeated cross-sectional study found recent patterns and trends in psychotherapy use that underscore uneven access to psychotherapy, with significantly faster growth

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among younger than older adults, females than males, adults with higher than lower income levels, college-educated people than those without a high school degree, employed than unemployed persons, and urban than rural residents. Because a considerable proportion of adult outpatient psychotherapy is now delivered via the internet, addressing technical and financial barriers to connect underserved groups with teletherapy may help achieve equity in psychotherapy access.

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Statistical analysis: McClellan, Zuvekas, Wall. Supervision: Olfson.

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