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Short communication

Demographic variation in preferred sources for suicide prevention and mental health crisis services among U.S. adults

Jonathan Purtle ^{a,*}, Amanda I. Mauri ^a, Anna-Michelle Marie McSorley ^b, Abigail Lin Adera ^{b,c}, Matthew L. Goldman ^d, Michael A. Lindsey ^e

- ^a Department of Public Health Policy & Management, School of Global Public Health, New York University, United States
- ^b Department of Allied Health Sciences, University of Connecticut, United States
- University of Miami, United States
- ^d Department of Psychiatry and Behavioral Sciences, University of Washington, United States
- e Silver School of Social Work, New York University, United States

ARTICLE INFO

Keywords: Mental health Crisis Suicide 988 Suicide & Crisis Lifeline Public opinion survey

ABSTRACT

Introduction: Recent federal policy initiatives (e.g., 988 Lifeline, Certified Community Behavioral Health Clinics) aim to increase access to mental health crisis services. The objective of this study was to determine the prevalence and correlates of U.S. adults reporting being "very likely" to reach out to different sources if they/a loved one were experiencing suicidality or a mental health crisis.

Methods: A nationally representative Ipsos KnowledgePanel survey of 5,058 U.S. adults (response rate = 55.0 %) in English and Spanish was conducted in June 2023. Multivariable logistic regression models assessed the reported likelihood of reaching out to five different sources of support in a crisis, controlling for past 30-day psychological distress and demographic characteristics.

Results: One-in-four respondents (27.8 %; 95 % CI = 26.5 %, 29.0 %) were very likely to reach out to a crisis line and 33.6 % (95 % CI = 32.3 %, 34.9 %) were very likely to reach out to a mental health professional. A friend/family member was the most frequently identified source of support (44.7 %; 95 % CI = 43.4 %, 46.1 %). After adjustment, people of younger ages, male gender, and identifying as Republican had significantly lower odds of reporting being very likely to reach out to a crisis line and mental health professional. Black and Hispanic respondents had significantly higher odds of reporting being very likely to reach out to a crisis line and someone in their religious network than non-Hispanic Whites.

Conclusions: Most U.S. adults report not being very likely to reach out to a crisis line or mental health professional if experiencing suicidality/crisis, although variation across demographic groups exists.

1. Introduction

Rising rates of suicide and psychological distress in the United States have prompted federal policy initiatives aiming to increase access to mental health crisis services (Hogan and Goldman, 2021; Martínez-Alés et al., 2022). One such initiative is the 988 Suicide & Crisis Lifeline, which went live in July 2022 (Miller et al., 2022). The creation of 988 prompted over \$206 million in federal and state investments into crisis call centers in 2022 (Purtle et al., 2023). Another major initiative involves substantial federal investments in Certified Community Behavioral Health Clinics (CCBHCs), which are required to provide access to crisis services. As of June 2024, nearly 40 % of counties and over 60 % of

the U.S. population resided within a CCBHC service area (Mauri et al., 2024).

The impacts of these policy initiatives on suicide and crisis outcomes—and the extent to which these impacts are equitable—will be influenced by people's willingness to reach out to these sources when they or a loved one are experiencing a crisis (Miller et al., 2022; Hom et al., 2015; Xu et al., 2018). Research has documented demographic differences in preferred sources of mental health services (Cabral and Smith, 2011; Planey et al., 2019; Gonzalez et al., 2011), but not specifically within the context of crisis situations. A June 2023 survey found that about one-quarter of U.S. adults were very likely to contact 988 in a crisis (Purtle et al., 2023). However, it is unclear how this proportion

^{*} Corresponding author at: 708 Broadway, Room 715, New York, NY 10003, United States. *E-mail address:* Jonathan.Purtle@NYU.edu (J. Purtle).

varies across demographic groups or how preferences for 988 or other crisis lines—such as the Trevor Project or Crisis Text Line—compares to other sources that people may reach out to in a crisis.

Understanding preferences for crisis services and support is important because such information can inform targeted communication campaigns about crisis help seeking (Miller et al., 2022; Hom et al., 2015; Xu et al., 2018). The current study aimed to determine the prevalence and correlates of U.S. adults being very likely to reach out to five different sources if they or a loved one were experiencing suicidality or a mental health crisis.

2. Methods

The Ipsos KnowledgePanel was used to conduct a nationally representative web-based survey of 5,058 U.S. adults (response rate $=55.0\,$ %) between June 9–19, 2023. The KnowledgePanel uses address-based, probability-based sampling and survey-specific weights to produce estimates representative of the non-institutionalized U.S. adult population (additional details in Supplement). KnowledgePanel participants are blind to survey topics when recruited, which reduces the risk of selection bias

The four dependent variables were created from five items, measured on 7-point scales, that assessed the reported likelihood of respondents reaching out to different sources if "they or a loved one were experiencing a crisis or suicidality." The sources were: the 988 Lifeline (which was defined), a crisis line other than 988, a mental health professional (e.g., psychologist, social worker), a friend/family member, and someone in their religious network (verbatim items in Supplement). The list order of sources was randomized between respondents. In primary analyses, these variables were dichotomized in which ratings of 6–7 were coded as "very likely" to reach out to the source. The 988 Lifeline and crisis line other than 988 items were combined into a single "crisis line" variable. The items were treated as continuous variables in secondary analysis (Supplement).

Independent variables were demographic characteristics (i.e., age, race/ethnicity, household income, education, gender, urbanicity, political party affiliation), which were provided by Ipsos for all KnowledgePanel participants, and a three-level ordinal variable of past 30-day psychological distress, assessed using Kessler's K6 Scale (Kessler et al., 2003). Respondents were categorized as having serious, moderate, or no distress based on established cut-points (Prochaska et al., 2012).

Descriptive statistics with 95 % confidence intervals characterized the proportion of respondents who reported being were very likely to reach out to each source in a crisis, stratified by demographic characteristics and distress level. Five separate multivariable logistic regression models assessed independent associations between dependent variables, distress levels, and demographic characteristics. The study was approved by the New York University Institutional Review Board.

3. Results

The weighted and unweighted demographic characteristics of the sample are provided in Table 1. One-in-three (33.6 %; 95 % CI = 32.3 %, 34.9 %) respondents reported being very likely to reach out to a mental health professional if they or a loved one were experiencing suicidality or a mental health crisis, and 27.8 % (95 % CI = 26.5 %, 29.0 %) reported being very likely to reach out to a crisis line (Table 2). These proportions were smaller than that observed for a friend/family member (44.7 %; 95 % CI = 43.4 %, 46.1 %). Friend/family member was consistently the source that the largest proportion of respondents reported being very likely to turn to, but the proportion did not exceed 50.0 % in all but two demographic strata.

After adjustment (Table 2), respondents with serious distress did not have significantly different odds of reporting being very likely to reach out to a mental health professional or a crisis line than respondents with no distress. However, respondents with serious (AOR = 0.49, 95 % CI = 0.49, 9

Table 1 Respondent characteristics, survey of U.S. adults about sources they might reach out to if their self or loved one was experiencing suicidality or a mental health crisis, June 2023 (N = 5.058).

	Weighted n (%)	Unweighted n (%)
Psychological Distress, Past 30 Days (K6 score)*		
Serious (≥ 13)	388 (7.9)	323
Moderate (5–12)	1006 (20.4)	923 (18.7)
None (≤ 4)	3548 (71.8)	3694 (74.8)
Age		
18–29	1012 (20.0)	589 (11.6)
30–44	1315 (26.0)	1144 (22.6)
45–59	1214 (24.0)	1296 (25.6)
≥ 60	1518 (30.0)	2029 (40.1)
Income		
< \$10,000	176 (3.5)	156 (3.1)
\$10,000-\$24,999	431 (8.5)	449 (8.9)
\$25,000-\$49,999	809 (16.0)	835 (16.5)
\$50,000-\$74,999	809 (16.0)	782 (15.5)
\$75,000-\$99,999	658 (13.0)	664 (13.1)
\$100,000-\$149,999	911 (18.0)	987 (19.5)
≥ \$150,000	1265 (25.0)	1185 (23.4)
Highest Education		
Less than high school	506 (10.0)	313 (6.2)
High school	1467 (29.0)	1268 (25.1)
Some college	1315 (26.0)	1380 (27.3)
Bachelor's degree or higher	1770 (35.0)	2097 (41.5)
Race/Ethnicity		
Black/African American, Non-Hispanic	607 (12.0)	502 (9.9)
Hispanic	860 (17.0)	630 (12.5)
Two or more races, Non-Hispanic	208 (4.1)	163 (3.2)
Other race, Non-Hispanic	247 (4.9)	205 (4.1)
White, Non-Hispanic	3136 (62.0)	3558 (70.3)
Gender		
Male	2478 (49.0)	2625 (51.9)
Female	2580 (51.0)	2433 (48.1)
Urbanicity		
Urban	1669 (33.0)	1669 (33.0)
Suburban	2483 (49.1)	2483 (49.1)
Rural	906 (17.9)	906 (17.9)
Political Party		
Democrat	1664 (32.9)	1664 (32.9)
Independent	1492 (29.5)	1492 (29.5)
Other	527 (10.4)	527 (10.4)
Republican	1345 (26.6)	1345 (26.6)

Note. Details about Ipsos KnowledgePanel weighting methodology are provided in the Supplement. *K6 scale score missing for 2.3 % of respondents. Psychological distress category percentages are based on number of respondents for which scores were available.

0.38, 0.62) or moderate (AOR = 0.77, 95 % CI = 0.66, 0.89) distress both had significantly lower odds of reporting being very likely to reach out to a friend/family member or someone in their religious network than respondents with no distress.

The proportions of respondents that reporting being very likely to reach out to a mental health professional or a crisis line were generally smaller in younger than older age categories. For example, after adjustment and compared to respondents age $\geq\!60$, respondents ages 18–29 had 36 % lower odds of reporting being very likely to reach out to a mental health professional (AOR = 0.64, 95 % CI = 0.53, 0.77) and 36 % lower odds of reporting being very likely to reach out to a crisis line (AOR = 0.64, 95 % CI = 0.52, 0.77).

Higher levels of education were significantly associated with reporting being very likely to reach out to a mental health professional, but not a crisis line. For example, 26.8 % (95 % CI = 24.5 %, 29.1 %) of respondents with a high school degree as their highest level of education reported being very likely to reach out to a mental health professional compared to 42.2 % (95 % CI = 39.9 %, 44.5 %) of respondents with a bachelor's degree or higher (AOR = 0.56, 95 % CI = 0.47, 0.66).

The proportions of respondents reporting being very likely to reach out to a crisis line were slightly higher among respondents identifying as

Table 2
Prevalence and correlates of being "very likely" to reach out to different sources if self or loved one was experiencing suicidality or a mental health crisis, stratified by past 30-days psychological distress level and demographic characteristics, U.S. Adults, June 2023 (N = 5,058).

	Crisis Line (e.g., 988 Suicide & Crisis Lifeline, Trevor Project, Crisis Text Line) (Model 1)		A Mental Health Professional (e.g., Psychologist, Psychiatrist, Social Worker) (Model 2)		A Friend/Family Member (Model 3)		Someone in Religious Network (Model 4)	
	%	AOR (95 % CI)	%	AOR (95 % CI)	%	AOR (95 % CI)	%	AOR (95 % CI)
All	27.9	-	33.6	-	44.7	-	17.4	-
Psychological Distress								
Serious (≥ 13)	25.2	0.87 (0.67, 1.12)	28.1	0.89 (0.69, 1.14)	30.1	0.49 (0.38, 0.62)	9.7	0.49 (0.34, 0.70
Moderate (5–12)	24	0.75 (0.63, 0.89)	33.6	0.96 (0.82, 1.13)	41.7	0.77 (0.66, 0.89)	13.9	0.71 (0.58, 0.88
None (\leq 4)	29.2	Ref.	34.7	Ref.	47.7	Ref.	19.4	Ref.
Age								
18–29	25.4	0.64 (0.52, 0.77)	26.3	0.64 (0.53, 0.77)	43.1	1.17 (0.98, 1.39)	12.7	0.69 (0.55, 0.88
30–44	23.2	0.58 (0.49, 0.7)	32.5	0.8 (0.67, 0.94)	44.5	1.1 (0.94, 1.29)	14.8	0.74 (0.6, 0.92)
45–59	27.8	0.75 (0.63, 0.9)	37.3	1.03 (0.87, 1.22)	45.7	1.09 (0.93, 1.28)	21.4	1.15 (0.94, 1.4)
≥ 60	33.7	Ref.	36.3	Ref.	45.2	Ref.	19.7	Ref.
Household Income								
< \$10,000	22.6	0.74 (0.48, 1.12)	27.4	0.84 (0.57, 1.24)	29.5	0.59 (0.41, 0.86)	16.2	1.3 (0.8, 2.12)
\$10,000-\$24,999	25.6	0.87 (0.65, 1.15)	23.5	0.62 (0.47, 0.82)	32.6	0.7 (0.54, 0.91)	13.3	1.28 (0.89, 1.83
\$25,000–\$49,999	33	1.28 (1.03, 1.6)	30.5	0.86 (0.69, 1.06)	43	0.99 (0.81, 1.21)	21.3	1.94 (1.49, 2.5
\$50,000–\$74,999	26.9	0.92 (0.74, 1.14)	31.6	0.83 (0.68, 1.02)	46.2	1.07 (0.89, 1.31)	20.5	1.83 (1.41, 2.3)
\$75,000–\$99,999	27.6	1.01 (0.81, 1.27)	33	0.86 (0.69, 1.06)	44.2	0.91 (0.74, 1.11)	20.3	1.68 (1.29, 2.2)
\$100,000–\$149,999	28	1.08 (0.88, 1.32)	35.2	0.88 (0.73, 1.06)	47.3	0.99 (0.83, 1.18)	16.9	1.31 (1.02, 1.6)
≥ \$150,000 ≥ \$150,000	26.8	Ref.	40.1	Ref.	49.6	Ref.	13.5	Ref.
Highest Education								
Less than high school	31.3	1.23 (0.95, 1.58)	24.2	0.49 (0.38, 0.64)	35.6	0.65 (0.51, 0.82)	17.1	0.8 (0.59, 1.09)
High school	27.5	1.01 (0.84, 1.21)	26.8	0.56 (0.47, 0.66)	41.2	0.75 (0.64, 0.88)	17.6	0.76 (0.61, 0.94
Some college	28.1	1 (0.84, 1.19)	33	0.7 (0.6, 0.83)	43.4	0.78 (0.67, 0.92)	18	0.82 (0.67, 1.01
≥ Bachelor's degree	27.1	Ref.	42.2	Ref.	51.3	Ref.	17	Ref.
Race/Ethnicity								
Black, Non-Hispanic	34.2	1.24 (1.01, 1.53)	34.3	0.92 (0.75, 1.13)	40	0.79 (0.65, 0.96)	23.7	2.22 (1.74, 2.82
Hispanic	31.8	1.31 (1.09, 1.57)	32.7	1.08 (0.9, 1.29)	42.8	0.95 (0.8, 1.13)	18.4	1.51 (1.21, 1.89
Two or more races, Non-Hispanic	24.1	0.94 (0.67, 1.32)	32.7	0.97 (0.71, 1.33)	40.9	0.79 (0.59, 1.06)	17	1.2 (0.81, 1.77)
Other race, Non-Hispanic	22.1	0.81 (0.59, 1.12)	24.6	0.49 (0.35, 0.67)	38.2	0.64 (0.48, 0.84)	10	0.68 (0.43, 1.05
White, Non-Hispanic	26.3	Ref.	34.4	Ref.	47	Ref.	16.6	Ref.
Gender								
Male	25.3	0.79 (0.69, 0.89)	28.9	0.63 (0.56, 0.72)	42.7	0.81 (0.72, 0.91)	16.6	0.89 (0.76, 1.03
Female	30.4	Ref.	38.1	Ref.	46.7	Ref.	18.2	Ref.
Urbanicity								
Urban	27.4	0.98 (0.8, 1.2)	34.8	1.18 (0.98, 1.43)	42.7	0.97 (0.81, 1.16)	17.2	0.83 (0.67, 1.04
Suburban	28.9	1.08 (0.9, 1.3)	35.5	1.18 (0.99, 1.40)	47.9	1.11 (0.94, 1.3)	17	0.78 (0.64, 0.96
Rural	25.9	Ref.	29.7	Ref.	44.5	Ref.	21.3	Ref.
Political Party								
Democrat	34.6	1.98 (1.65, 2.38)	43.1	2.03 (1.71, 2.40)	50.1	1.29 (1.10, 1.51)	14.4	0.43 (0.35, 0.53
Independent	27	1.45 (1.21, 1.75)	31.8	1.32 (1.11, 1.57)	42	0.91 (0.78, 1.07)	14.6	0.49 (0.40, 0.6
Other	26.7	1.52 (1.19, 1.96)	30.3	1.38 (1.09, 1.75)	41.5	1.02 (0.82, 1.27)	18.7	0.7 (0.53, 0.93)
Republican	21.1	Ref.	27.4	Ref.	45.7	Ref.	24.9	Ref.

AOR = adjusted odds ratios from separate multivariable logistic regression models adjusting for all demographic characteristics, but not adjusting for being "very likely" to turn to other sources. Percentages are row percentages and reflect the percentage of respondents in each demographic stratum that report being "very likely" to turn to each source. Thus, they do not sum to 100 %. Data are weighted using survey-specific weights provided by Ipsos to provide estimates of the non-institutionalized U.S. adult population. Details about weighting are provided in the Supplement. "Very Likely" = 6–7 on 7-point scale. 95 % CIs for all percentages are provided in the Supplement. All AORs produced using logistic regression models.

non-Hispanic Black (34.2 %; 95 % CI = 30.3 % 38.0 %) and Hispanic (31.8 %; 95 % CI = 28.7 %, 35.0 %) compared to non-Hispanic Whites (26.3 %; 95 % CI = 24.8 %, 27.9 %). These associations were significant after adjustment, with non-Hispanic Black respondents having 24 % higher odds (AOR = 1.24, 95 % CI = 1.01, 1.53) and Hispanic respondents having 31 % higher odds (AOR = 1.31, 95 % CI = 1.09, 1.57)

of reporting being very likely to reach out to a crisis line compared to non-Hispanic Whites. Non-Hispanic Black (AOR $=2.22,\,95\,\%$ CI $=1.74,\,2.82)$ and Hispanic (AOR $=1.51,\,95\,\%$ CI $=1.21,\,1.89)$ respondents also had significantly higher odds than non-Hispanic White respondents of reporting being very likely to reach out to someone in their religious network in a crisis.

Respondents identifying as male had significantly lower odds of reporting being very likely to reach out a mental health professional (AOR = 0.79, 95 % CI = 0.69, 0.89) and a crisis line (AOR = 0.63, 95 % CI = 0.56, 0.72) than respondents identifying as female. Conversely, Democrats had significantly higher odds of reporting being very likely to reach out to these two sources than Republicans (AOR = 2.03, 95 % CI = 2.03) and AOR = 1.98, 95 % CI = 1.65, 2.38), respectively). Democrats also had significantly higher odds of reporting being very likely to reach out to friend/family member than Republicans (AOR = 1.29, 95 % CI = 1.10, 1.51), but significantly lower odds of reporting being very likely to reach out to someone in their religious network (AOR = 0.43, 95 % CI = 0.35, 0.53),

4. Discussion

About one-third or less of U.S. adults report being very likely to reach out to a mental health professional or a crisis line or if they or a loved one were experiencing suicidality or a mental health crisis. A friend/family member was the source respondents most frequently identified as being very likely to turn to in a crisis. This finding underscores the importance of interventions (e.g., Mental Health First Aid) that equip lay people with knowledge and skills to support people in crisis. However, despite being the most common source, less than half of respondents reported being very likely to reach out to a friend/family member. Furthermore, having serious or moderate psychological distress was associated with lower odds of reporting being very likely to seek help from a friend/family member. These findings highlight the importance of reducing stigma about mental health crisis and promoting help seeking (Xu et al., 2018).

Identifying as Black or Hispanic was independently associated with higher odds of reporting being very likely to reach out to a crisis line, such as 988. This finding warrants further investigation, but could reflect 988 being perceived as a desirable alternative to 911 and potential police response (Balfour et al., 2022). The finding is also promising given prior research demonstrating racial and ethnic disparities in mental health treatment seeking in the United States (Kaur et al., 2023).

Identifying as Republican was independently associated with significantly lower odds of being very likely to reach out to a crisis line as well as a mental health professional. These findings are consistent with a public opinion survey conducted prior to 988's launch which found that Republicans were significantly less supportive of 988 than Democrats (Callaghan et al., 2024), as well as an analysis of state legislators' social media post which found that Republicans posted about 988 at a lower rate than Democrats (Purtle et al., 2023). More broadly, these findings are consistent with research about partisan differences in trust in health care institutions as well as mental health services (Pilar et al., 2023; Goldstein and Wiedemann, 2022; Gollust et al., 2024) and suggest a need to consider political party affiliation when messaging about crisis services

Study limitations relate to the representativeness of the sample. Despite using address-based, probability-based sampling and survey-specific weights, it is possible that results are not generalizable to all U.S. adults. Also, information on all potentially important demographic characteristics (e.g., sexual orientation, non-binary gender identity, Veteran or disability status) were not available. Additionally, the extent to which mental health professionals were available respondents' geographic areas could affect help seeking intentions from this source and information about the availability of these professionals was not linked to respondents. Finally, dependent variables were assessed with single items with unknown predictive validity.

5. Conclusion

Most U.S. adults do not report being very likely to reach out to a mental health professional or a crisis line if they or a loved one were experiencing suicidality or a mental health crisis, although variation across demographic groups exists. The impacts of policies that aim to increase access to crisis services—such as 988 and CCBHCs—may be enhanced if complemented by demographically-tailored communication campaigns that promote help seeking from these and other sources.

Disclosure of Funding and Conflicts of Interest

This study was in-part funded by the National Institute of Mental Health (R01MH131649). None of the authors have conflicts of interested to disclose.

CRediT authorship contribution statement

Jonathan Purtle: Writing – original draft, Project administration, Methodology, Funding acquisition, Data curation, Conceptualization. Amanda I. Mauri: Writing – review & editing. Anna-Michelle Marie McSorley: Writing – review & editing. Abigail Lin Adera: Writing – review & editing. Matthew L. Goldman: Writing – review & editing. Michael A. Lindsey: Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.pmedr.2024.102914.

Data availability

Data will be made available on request.

References

- Balfour, M.E., Hahn Stephenson, A., Delany-Brumsey, A., Winsky, J., Goldman, M.L., 2022. Cops, clinicians, or both? Collaborative approaches to responding to behavioral health emergencies. Psychiatr. Serv. 73 (6), 658–669.
- Cabral, R.R., Smith, T.B., 2011. Racial/ethnic matching of clients and therapists in mental health services: a meta-analytic review of preferences, perceptions, and outcomes. J. Couns. Psychol. 58 (4), 537.
- Callaghan, T., Ferdinand, A.O., Motta, M., Lockman, A., Shrestha, A., Trujillo, K.L., 2024.
 Public attitudes, inequities, and polarization in the launch of the 988 lifeline.
 J. Health Polit. Policy Law 49 (3), 473–493.
- Goldstein, D.A., Wiedemann, J., 2022. Who do you trust? The consequences of partisanship and trust for public responsiveness to COVID-19 orders. Perspect. Polit. 20 (2), 412–438.
- Gollust, S.E., Gansen, C., Fowler, E.F., Moore, S.T., Nagler, R.H., 2024. Polarized perspectives on health equity: results from a nationally representative survey on US public perceptions of COVID-19 disparities in 2023. J. Health Polit. Policy Law 49 (3), 403–427.
- Gonzalez, J.M., Alegría, M., Prihoda, T.J., Copeland, L.A., Zeber, J.E., 2011. How the relationship of attitudes toward mental health treatment and service use differs by age, gender, ethnicity/race and education. Soc. Psychiatry Psychiatr. Epidemiol. 46, 45–57.
- Hogan, M.F., Goldman, M.L., 2021. New opportunities to improve mental health crisis systems. Psychiatr. Serv. 72 (2), 169–173.
- Hom, M.A., Stanley, I.H., Joiner Jr, T.E., 2015. Evaluating factors and interventions that influence help-seeking and mental health service utilization among suicidal individuals: A review of the literature. Clin. Psychol. Rev. 40, 28–39.
- Kaur, N., Esie, P., Finsaas, M.C., Mauro, P.M., Keyes, K.M., 2023. Trends in racial-ethnic disparities in adult mental health treatment use from 2005 to 2019. Psychiatr. Serv. 74 (5), 455–462.
- Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., Howes, M. J., Normand, S.L., Manderscheid, R.W., Walters, E.E., Zaslavsky, A.M., 2003. Screening for serious mental illness in the general population. Arch. Gen. Psychiatry 60 (2), 184–189.
- Martínez-Alés, G., Jiang, T., Keyes, K.M., Gradus, J.L., 2022. The recent rise of suicide mortality in the United States. Annu. Rev. Public Health 43, 99–116.
- Mauri, A.I., Xiang, N., Adams, D., Purtle, J., 2024. Proportion of US counties and population served by certified community behavioral health clinics. JAMA Health Forum 5 (10), e243001.

- Miller, A.B., Oppenheimer, C.W., Glenn, C.R., Yaros, A.C., 2022. Preliminary research priorities for factors influencing individual outcomes for users of the US National Suicide Prevention Lifeline. JAMA Psychiat. 79 (12), 1225–1231.
- Pilar, M., Purtle, J., Powell, B.J., Mazzucca, S., Eyler, A.A., Brownson, R.C., 2023. An examination of factors affecting state legislators' support for parity laws for different mental illnesses. Community Ment. Health J. 59 (1), 122–131.
- Planey, A.M., Smith, S.M., Moore, S., Walker, T.D., 2019. Barriers and facilitators to mental health help-seeking among African American youth and their families: A systematic review study. Child Youth Serv. Rev. 101, 190–200.
- Prochaska, J.J., Sung, H.Y., Max, W., Shi, Y., Ong, M., 2012. Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization. Int. J. Methods Psychiatr. Res. 21 (2), 88–97.
- Purtle, J., Bandara, S., Goldstein, A., Pantalone, J., Goldman, M.L., 2023.
 Implementation of the 988 Suicide & Crisis Lifeline: estimating state-level increases in call demand costs and financing. J. Ment. Health Policy Econ. 26 (2), 85–95.
- Purtle, J., McSorley, A.M., Adera, A.L., Lindsey, M.A., 2023. Use, potential use, and awareness of the 988 suicide and crisis lifeline by level of psychological distress. JAMA Netw. Open 6 (10), e2341383.
- Purtle, J., Soltero, M., Crane, M.E., McSorley, A.-M.-M., Knapp, M., Drapeau, C.W., 2023. State legislator social media posts about the 988 suicide and crisis lifeline. JAMA Netw. Open 6 (10), e2339845.
- Xu, Z., Huang, F., Koesters, M., Staiger, T., Becker, T., Thornicroft, G., Ruesch, N., 2018. Effectiveness of interventions to promote help-seeking for mental health problems: Systematic review and meta-analysis. Psychol. Med. 48 (16), 2658–2667.