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Insights on Social Isolation from a National Health Information Survey

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BACKGROUND

- Social isolation has been increasing over the past few years, with a 2023 U.S. Surgeon General Advisory highlighted the epidemic of loneliness and the importance of social connections on health. Over time, trust in healthcare has been decreasing along with perception of decreased quality of care and all of these have been amplified by the COVID-19 pandemic.
- The study objective was to use a national survey dataset to examine relationship between social isolation, social media use, perceived quality and trust in healthcare.

METHODS

- The Health Information National Trends Survey (HINTS) dataset is based on a nationally representative, cross-sectional survey of adults > 18 years, and HINTS 6 data from 2022 (n= 6,252) was analyzed.
- Social Isolation was categorized based on Patient-Reported Measurement Information System (PROMIS).
- Isolation score with >=60 considered as high isolation.
- Isolation scores and its association with social media use were examined, and its association on 2 variables: trust in healthcare system and perception of quality of care received.
- Analysis including univariate statistics and chi-square test for categorical data done in R software (v 4.3) and graphs in Microsoft Excel.

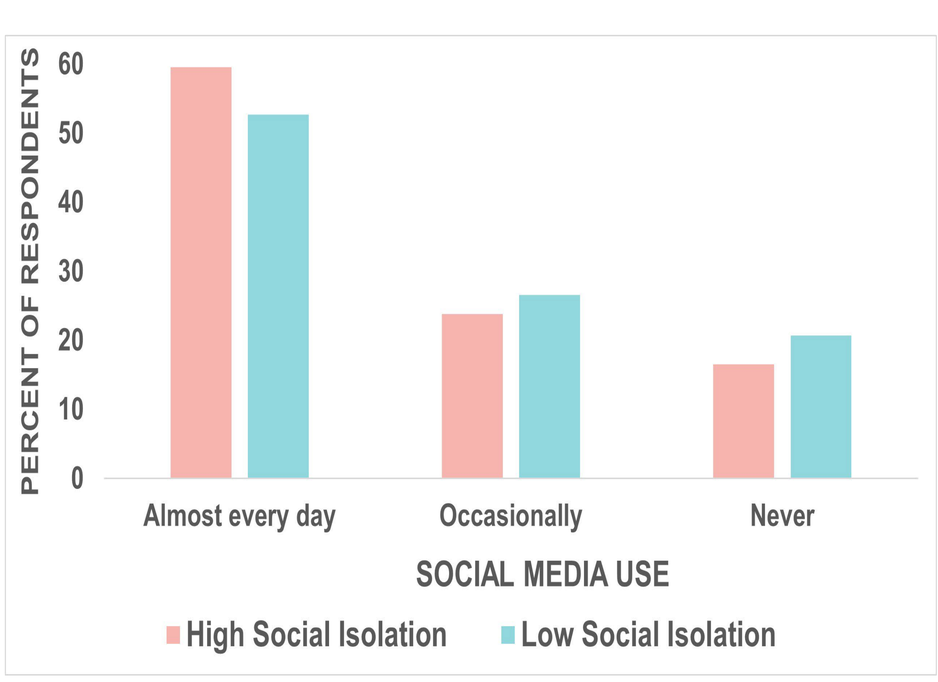
RESULTS

Table 1: Social Isolation and Perceived Quality of Care and Trust in Healthcare System

Variable of Interest		High Isolation Score (>60) N(%)	Low Isolation Score (<60) N(%)
Perceived Quality of Care	High	241(7.5)	2981(92.5)
	Low	196(13.8)	1222(86.2)
	p-value	<0.001	
Trust in Healthcare System	High	356(8.0)	4102(92.0)
	Low	139(18.1)	628(81.9)
	p-value	<0.001	

- There is also a significant association between perceived quality of care and trust in the healthcare system with PROMIS social isolation scores
- Table 1 shows among those with perceived low quality of care, 13.8% had high social isolation scores compared to 7.5 % in the high-quality group.
- 18.1% of respondents with low trust in the health care system had high PROMIS social isolation scores compared to 8.0% in the high-trust group.
- Respondents who reported high PROMIS social isolation score were significantly associated with lower perception of care quality and low trust in healthcare system (p<0.001).

Figure 1: Social Isolation and Social Media Use



- Figure 1 shows that respondents with high PROMIS social isolation scores were using social media more (almost every day) when compared to those with low isolation scores.
- One fifth (20%) of people with low social isolation scores had never used any social media.

CONCLUSION + ACKNOWLEDGEMENT

- The study highlights that US adults with higher social isolation were using social media more frequently. Moreover, social isolation is associated with lowered perceived quality of care and reduced trust in healthcare system.
- Future research should focus on trends in social media use, longitudinal effects of social isolation and its impact on population health.

References

1. U.S. Surgeon General Advisory. Our Epidemic of Loneliness and Isolation: Healing Effects of Social Connection and Community. 2023. Cited Feb 26, 2025. Available from: http://www.ncbi.nlm.nih.gov/books/NBK595227/
2. Health Information National Trends Survey (HINTS). Cited February 26, 2025. Available from https://hints.cancer.gov/docs/Instruments/HINTS6-AnnotatedEnglishInstrument.pdf
3. HealthMeasures. Interpreting PROMIS Scoring. Cited Feb 26, 2025. https://sphsoutcomes.net/promis-scoring

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