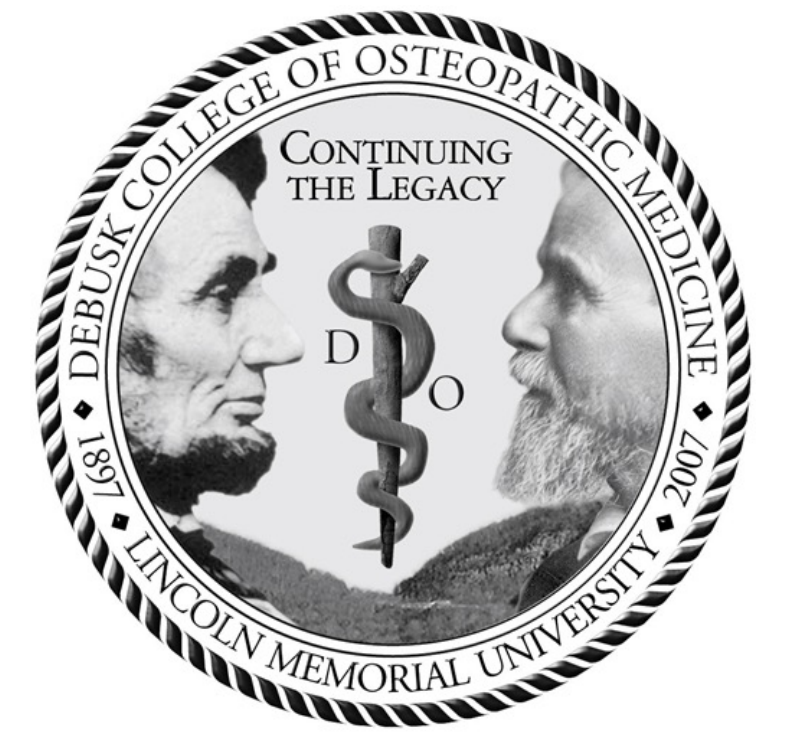


# Impact of Handwritten Letters on Mental Illnesses: A Cross-Sectional Pilot Study

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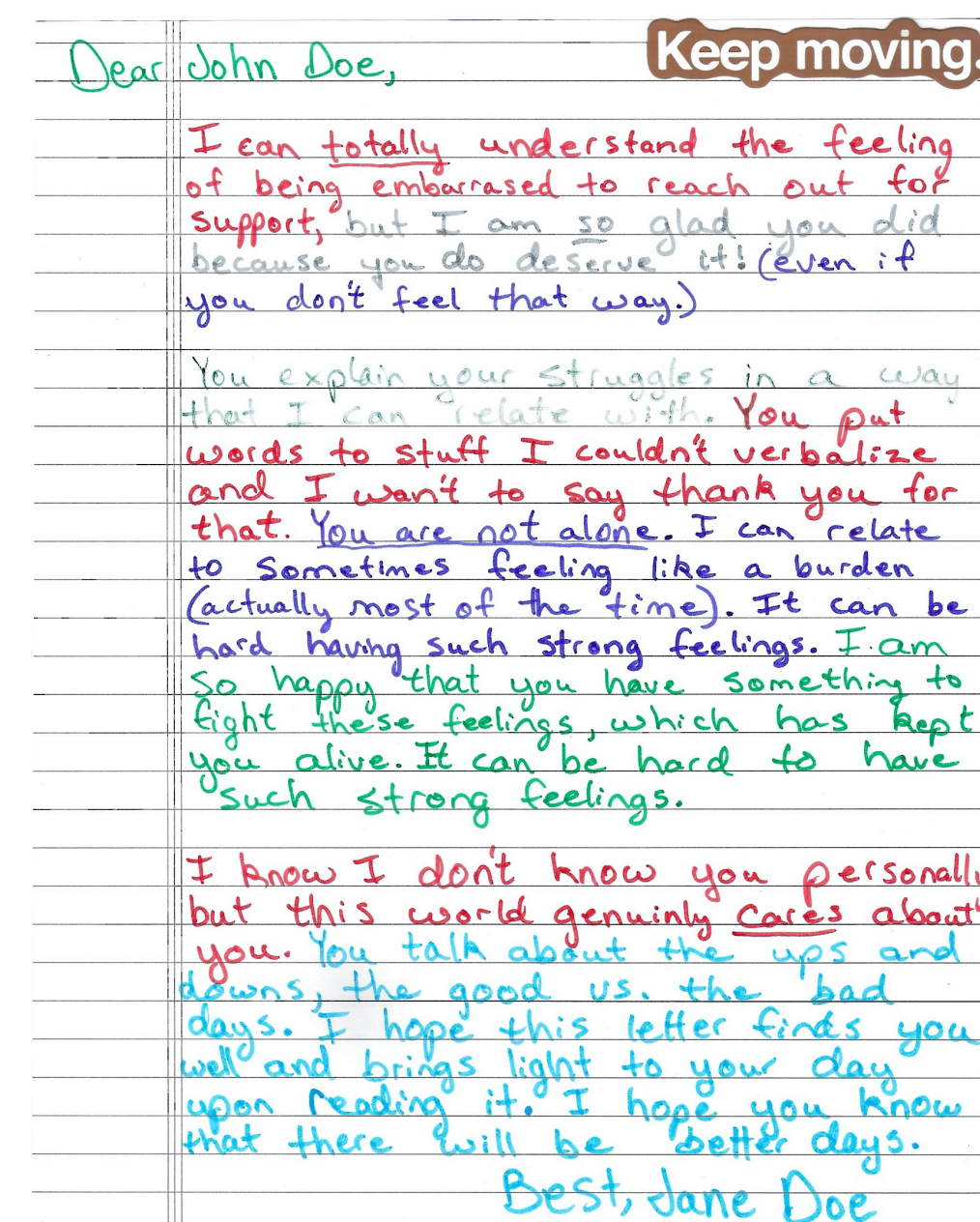


## Background and Hypothesis

Prior experiments have explored the effectiveness of the following types of letters on suicide prevention:

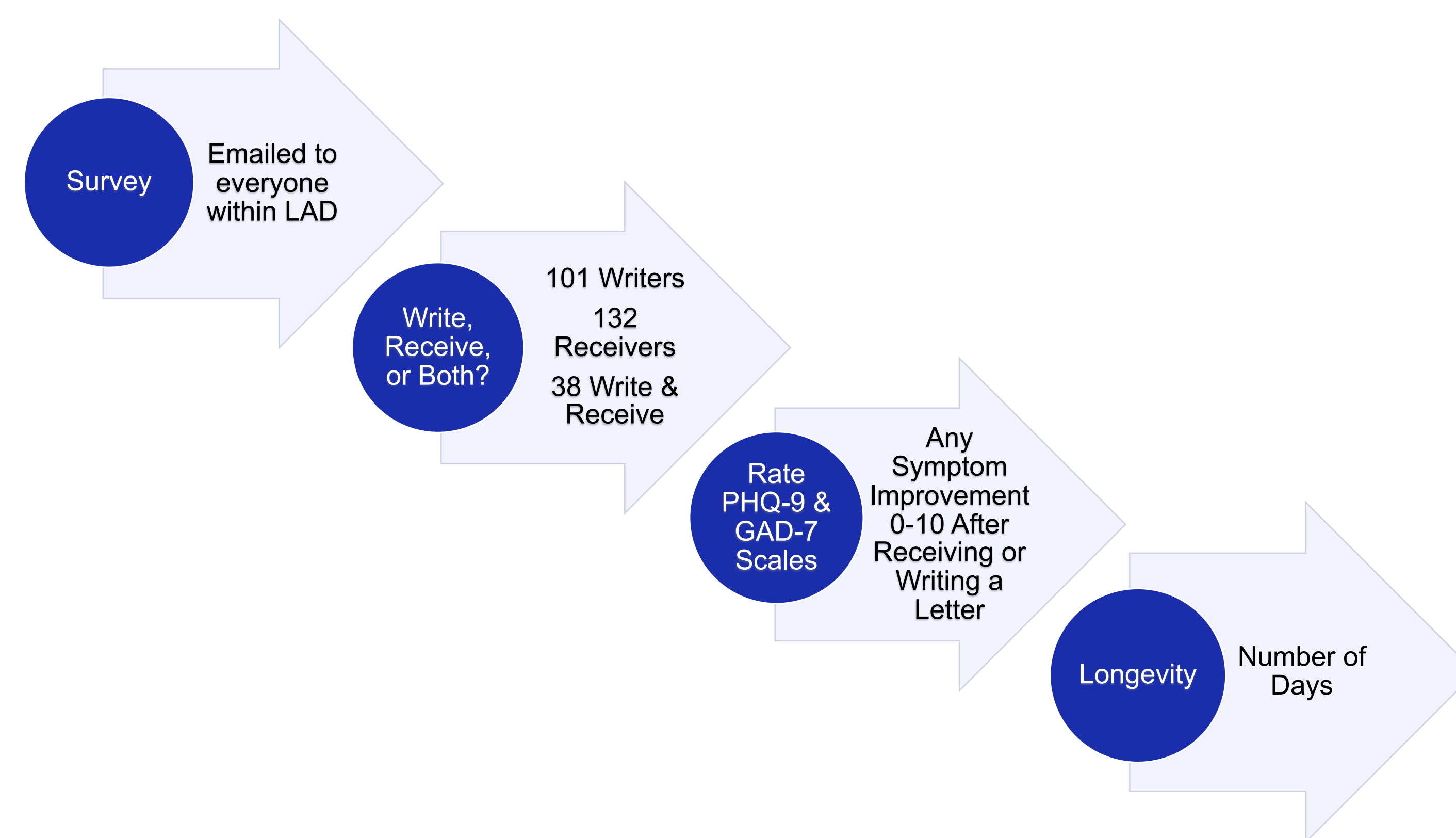
- caring letters/postcards
- short, typed letters containing generalized wishing-you-well statements
- short email or postal mail letters for military personnel<sup>2</sup>

However, none have explored the effectiveness of personalized, handwritten letters such as the one to the right.



Volunteers and letter receivers at LAD might be functioning as a support group. One meta-analysis comparing peer support with usual care reported a significantly greater reduction in depression ( $p=0.002$ ).<sup>4</sup> Similarly, a randomized controlled trial demonstrated that individuals engaging in forums on a support group website had reduced depression scores. Reasons for why group therapy is effective in controlling symptoms of mental illnesses include interpersonal input, group cohesiveness, understanding, and instillation of hope amongst others.<sup>6</sup>

## Methods

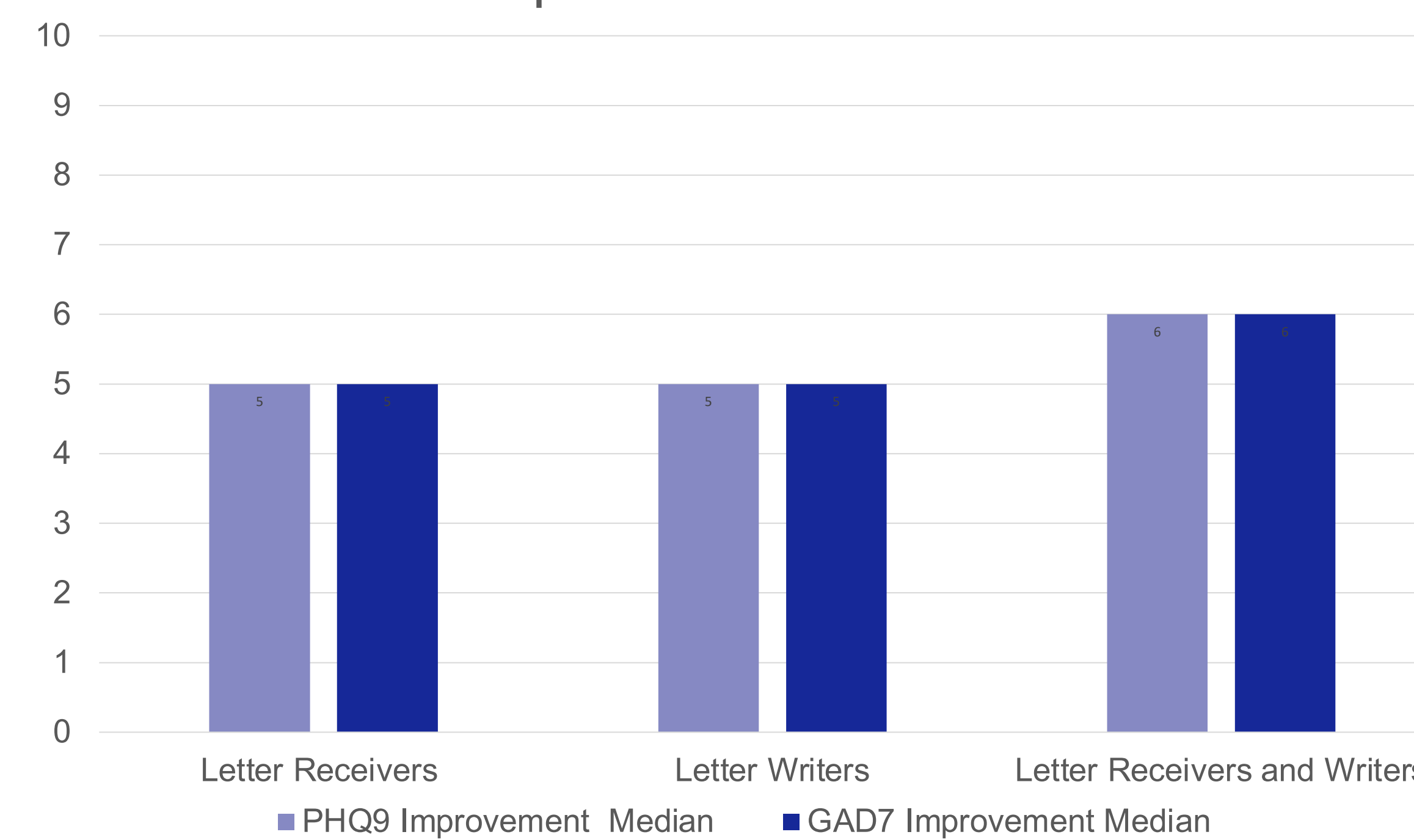


Median and mean values of PHQ-9 & GAD-7 & longevity of symptom improvement scores were calculated.

A p-value of  $<0.05$  and 95% confidence intervals were used to confirm if comparisons were statistically significant.

## Results

Depression & Anxiety Symptom Improvement



98.52% of participants self-reported an improvement in PHQ-9 or GAD-7 symptoms.

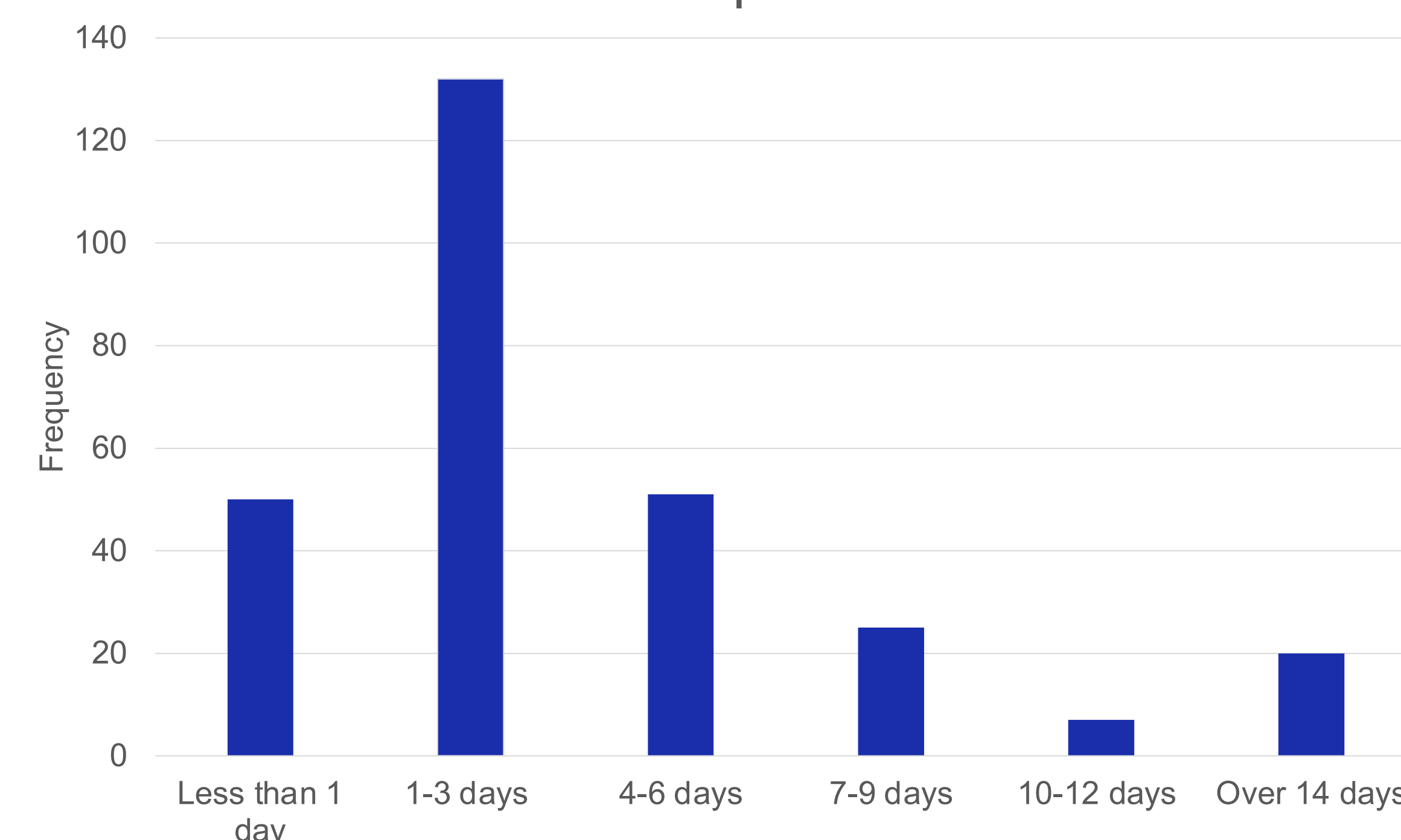
91% participants reported letters improved other mental illnesses.

1-3 days was the most frequent period reported for symptom relief for letter writers, receivers, and those who do both.

Chi-square found a statistically significant association between writing and/or receiving letters and improvement of symptoms from other mental illnesses ( $p < 0.001$ ).

A 95% confidence interval showed that those who do both writing and receiving did not benefit more than those who are just writers or receivers.

Length of Symptom Improvement of Participants



One to three days was the most frequent period reported for symptom relief for participants.

## Discussion

• Studies have purported that a PHQ-9 change score of 5.0 and a GAD-7 change score of 4.0 reflects a clinically relevant change in individuals receiving pharmacotherapy.<sup>7,8</sup>

• The median PHQ-9 and GAD-7 symptom improvement immediately following the reception or writing of a letter was 5.0 on a scale of 0-10.

• The improvement in PHQ-9 and GAD-7 scores from letter writing may be explained by LAD functioning as a “mail-carrier support group,” since writers craft a letter offering interpersonal input, understanding, hope, and a sense of group cohesiveness.

• The benefit we observed by individuals receiving letters may be explained by Joiner’s interpersonal-psychological theory of suicide, which states that individuals with “thwarted belongingness” are more likely to attempt and complete suicide.<sup>9</sup> Individuals receiving caring, personalized messages experience symptom improvement because these messages facilitate belongingness.

## Acknowledgments and IRB

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