

## Emergency Healthcare Provider Wait Time before Patient Discharge after Opioid Administration: A Gender Analysis

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# Emergency Healthcare Provider Wait Time before Patient Discharge after Opioid Administration: A Gender Analysis

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## GENDER DISPARITIES

### Past Studies Suggest that Female Medical Providers:

- ☐ Have longer appointments<sup>1</sup>
- ☐ May possess more empathy for patients<sup>2</sup>
- ☐ Focus on preventative care<sup>1</sup>
- ☐ Administer less opioids in the emergency department<sup>3</sup>

### While Male Providers:

- ☐ Devote more time to taking a medical history<sup>1</sup>
- ☐ Administer more opioids in the emergency department<sup>3</sup>

## THE “OPIOID EPIDEMIC”

- ☐ The number of nationwide deaths from prescription opioid overdose quadrupled between 1999 and 2010<sup>4</sup>
- ☐ Emergency healthcare providers prescribe about 25% of all opioid analgesics in the US<sup>5</sup>
- ☐ Between 2001 and 2010 there was a 49% increase in the percentage of emergency room patients that were prescribed an opioid<sup>6</sup>
- ☐ **No official guidelines** exist for the discharging of emergency department patients after opioid administration

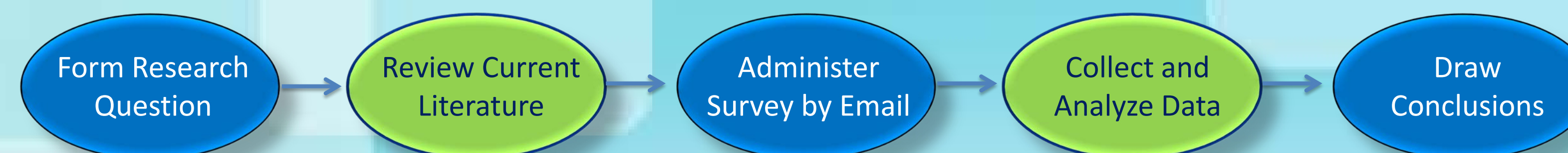
**Purpose:** To determine if a significant difference exists between the amount of time male and female emergency healthcare providers wait to discharge patients who have received opioids.

**Hypothesis:** Female emergency healthcare providers keep patients in the emergency room significantly longer after opioid administration than their male counterparts.

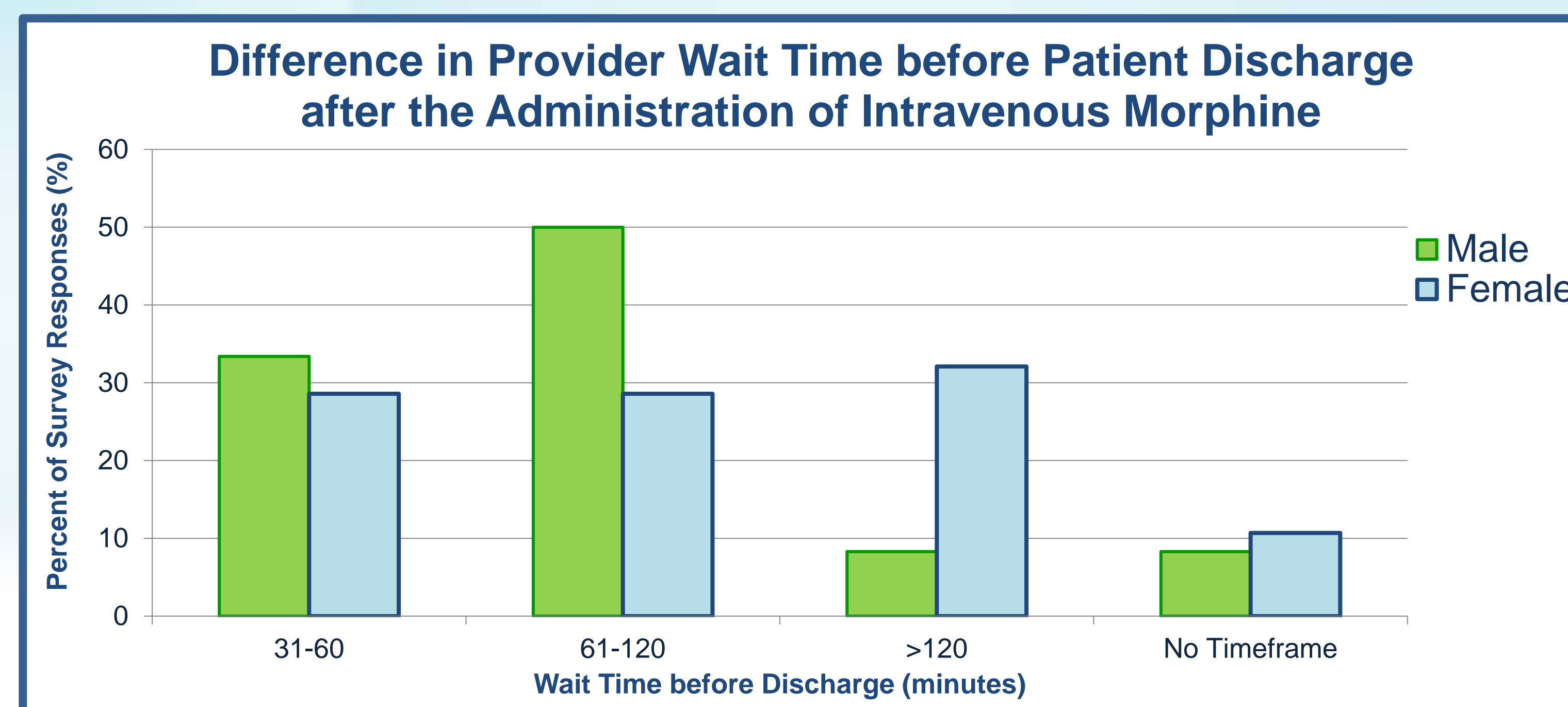
**Rationale:** Female providers have been shown to spend more time with their patients and exhibit more caution when prescribing opioids in the emergency room. Therefore, they are more likely to wait longer to discharge a patient after the administration of opioids.

## METHODS

- ☐ Emergency healthcare providers from the Lehigh Valley Health Network were sent a multiple-choice survey which asked each provider how long they wait to discharge a patient from the ER after the administration of different opioids.
- ☐ 40 survey responses (28 female, 12 male) were analyzed.
- ☐ A Chi Squared test of independence was performed for each of the six questions with respect to provider gender.



## RESULTS



Each of the six analyzed variables demonstrated a pattern similar to Intravenous Morphine; female providers showed a slight preference for a longer wait time.

### Results of Statistical Analysis

| Question | Opioid of Interest          | P-Value   |
|----------|-----------------------------|-----------|
| 1        | Intramuscular Hydromorphone | 0.7480727 |
| 2        | Intravenous Hydromorphone   | 0.3976212 |
| 3        | Intramuscular Morphine      | 0.9267646 |
| 4        | Intravenous Morphine        | 0.3702678 |
| 5        | Intravenous Fentanyl        | 0.7255288 |
| 6        | Oral Opioids or Opiates     | 0.3895142 |

The relationship between provider gender and time before discharge after opioid administration was not statistically significant ( $p < 0.05$ ) for any of the analyzed opioids.

## DISCUSSION

Female emergency healthcare providers reported waiting longer than male providers to discharge a patient after opioid administration for each of the six opioid treatments. However, the gender disparities were not statistically significant for any of the six survey questions. Though this analysis failed to reject the null hypothesis, it calls for the exploration of the emergent pattern reported by the data.

The experiment could be repeated with the following changes:

- ☐ Utilize a larger sample size
- ☐ Include data from multiple institutions
- ☐ Perform a more rigorous statistical analysis

## CONCLUSION

This study found no statistically significant difference between the practices of male and female emergency healthcare providers. Further research must be done to determine if female emergency healthcare providers elect to keep patients in the emergency room significantly longer after opioid administration.

### REFERENCES:

- Bertakis KD, Helms LJ, Callahan EJ, Azari R, Robbins JA. The Influence of Gender on Physician Practice Style. *Med Care*. 1995; 33(4):407-416.
- Chen, DC, Kirshenbaum DS, Yan J, Kirshenbaum E, Aseltine RH. Characterizing Changes in Student Empathy throughout Medical School. *Med Teach*. 2012; 34(4):305-311.
- Varney SM, Bebart VS, Mannina LM, Ramos RG, Ganem VJ, Carey KR. Emergency Medicine Providers' Opioid Prescribing Practices Stratified by Gender, Age, and Years in Practice. *World J Emerg Med*. 2016; 7(2):106-110.
- Kane J. Prescription Drug Abuse: Top 10 Things CDC Says You Should Know. *PBS News Hour*. 2013.
- Volkow, ND, McLellan TA. Characteristics of Opioid Prescriptions in 2009. *JAMA*. 2011; 305(13):1299-1301.
- Mazer-Amirshahi M, Mullins PM, Rasooly I, et al. Rising Opioid Prescribing in Adult US Emergency Department Visits: 2001–2010. *Acad Emerg Med*. 2014; 21:236-243.

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