Women and Pre-hospital Delays Associated with Myocardial Infarction

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Background

Cardiovascular disease (CVD) is the leading cause of death for men and women

- Women experience disproportionate mortality and morbidity.
- Women tend to delay seeking treatment longer than men, thus having poorer outcomes.

Aims

1. Describe prodromal and acute symptoms of myocardial infarction (MI) in women and the relationship to delays in seeking treatment.
2. Comprehensively examine factors associated with symptoms and delay.
3. Explore novel concepts in relation to delay, for example, temporal orientation, time duration estimation in life-threatening situations, and impulsivity.

Methods

Using a cross-sectional correlational design, rural women who had an MI in the past 3 years were recruited from a hospital in the southeastern United States (N=56).

Measures:

- McSweeney Acute and Prodromal Symptom Survey (MAPMISS)
- Demographic data tool
- Time Orientation Scale
- Barratt Impulsivity Scale version 11 (BIS-11)

Results

- Most of the women were White (84%), while 11% were Black, and 5% were Native American.
- Age ranged from 37-92 (M=70).
- Age was negatively correlated with symptoms scores ($r_s=-0.472, p<0.01$).
- Fatigue was the most commonly experienced prodromal symptom.
- 62% of the women experienced chest pain (in the acute phase).

Conclusions

WOMEN AT RISK

- Lower income women had longer delays (mean delay of 900 minutes longer).
- Almost 40% of the women had previously been to the hospital with similar symptoms and had a mean delay of 400 minutes longer than those who had not previously sought care.

DELAY

- Delays ranged from 10 minutes to 2 weeks (median 60 minutes).
- Women who perceived their symptoms as life-threatening had a mean delay of >1000 minutes longer and underestimated their delays (compared to the medical record).
- First MIs delayed longer.
- No relationships between delay and symptom scores ($r_s=-0.046, p=0.74$), impulsivity ($r_s=0.04, p=0.775$), or temporal orientation ($t=-0.024, p=0.885$).
- Age, race, first-degree relative with MI, modifiable risk factors, temporal orientation, and impulsivity did not predict delay ($F=1.053, p=0.408$).

Factors leading to delays in women seeking treatment with MI are not well understood.

Future research should investigate other factors influencing delays:

- Women’s interactions with healthcare providers
- Time duration estimation during situations perceived as life-threatening