

Effect of Early Gynecologic Oncology Involvement on Patient Outcomes



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Introduction

- Early diagnosis of gynecological cancers has been shown to improve patient outcomes.
- One way to promote early diagnosis is by shortening the time of the diagnostic interval, or the time between a patient's first consult and their definitive diagnosis.
- Treatment by a subspecialist in gynecologic oncology as been shown to promote improved survival in women with gynecologic cancers.
- The improved outcomes associated with subspecialist care may be due to a shortened diagnostic interval.
- At safety net hospitals, many patients rely on the emergency room as a critical point of access to care.

Methods

- This study is a retrospective chart review of 122 patients who were referred from the Emergency Department (ED) to Gynecologic Oncology at Touro Infirmary, University Medical Center, and East Jefferson General Hospital.
- We recorded the level of subspecialty that was encountered at the patients' ED visit.
- We calculated the time from the ED visit until the time of first gynecological involvement, time until diagnosis, and time until initiation of treatment.
- Variables such as race, ethnicity, primary language, comorbidities, and location were also recorded.
- Data was stored in REDcap, a HIPAA compliant, secure, web-based program.

Goal

The goal of this paper is to explore the effect of the level of subspecialty faculty involvement in emergency department consults on the time until involvement of a gynecological oncologist, time until diagnosis, and time until initiation of treatment of patients with gynecological cancer.

Hypothesis

Earlier engagement by subspecialists in the emergency department will lead to shorter time intervals until the first encounter with gynecologic oncology, diagnosis of cancer and initiation of cancer treatment. We believe that gynecologic oncology involvement in the emergency department will shorten these times more than gynecology involvement, but both gynecologic oncology and gynecology involvement will shorten these times relative to emergency room visits without gynecology involvement.

Figure 1. Time between ED visit and Gynecologic Oncology Involvement

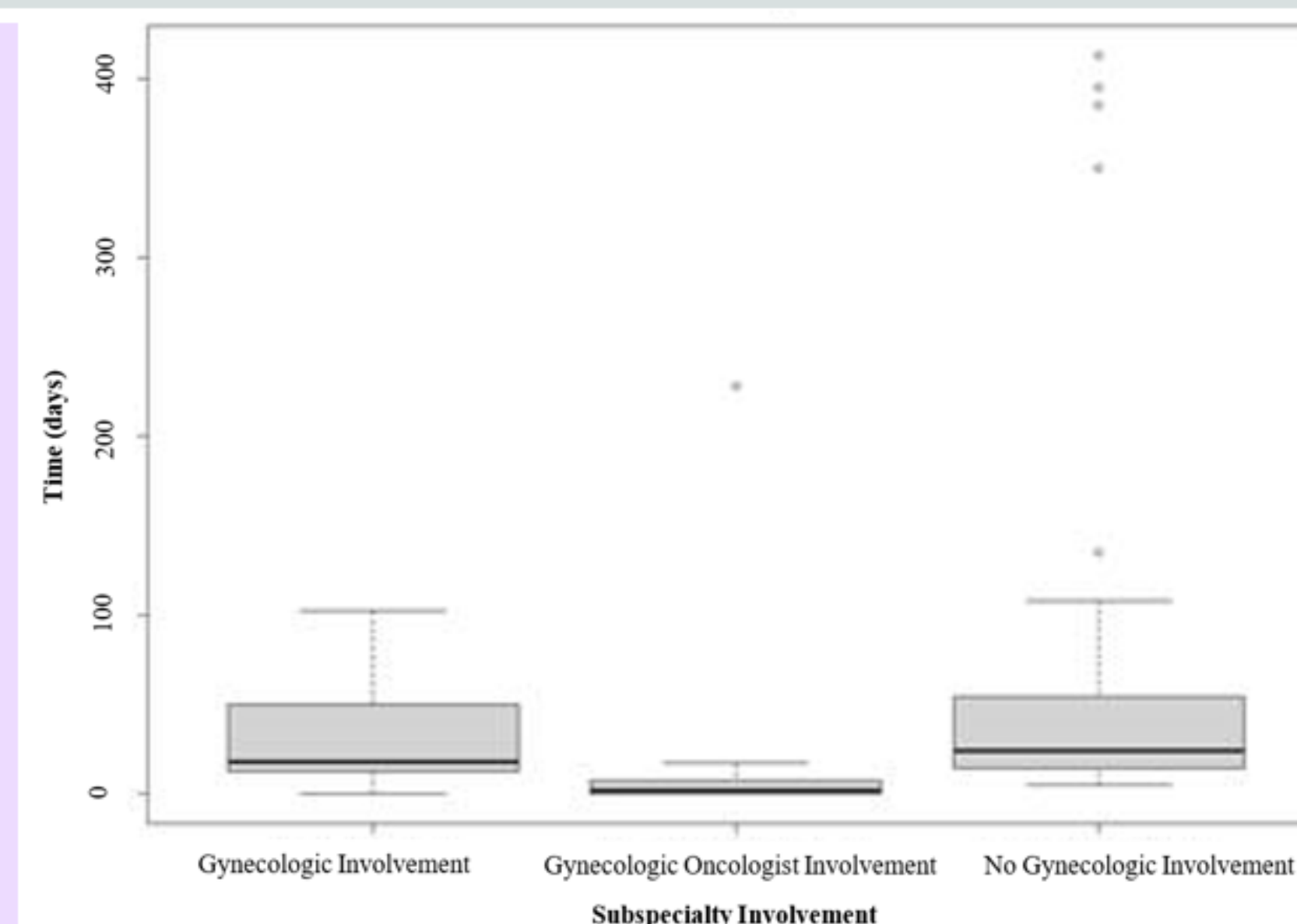


Figure 2. Time between ED visit and Diagnosis

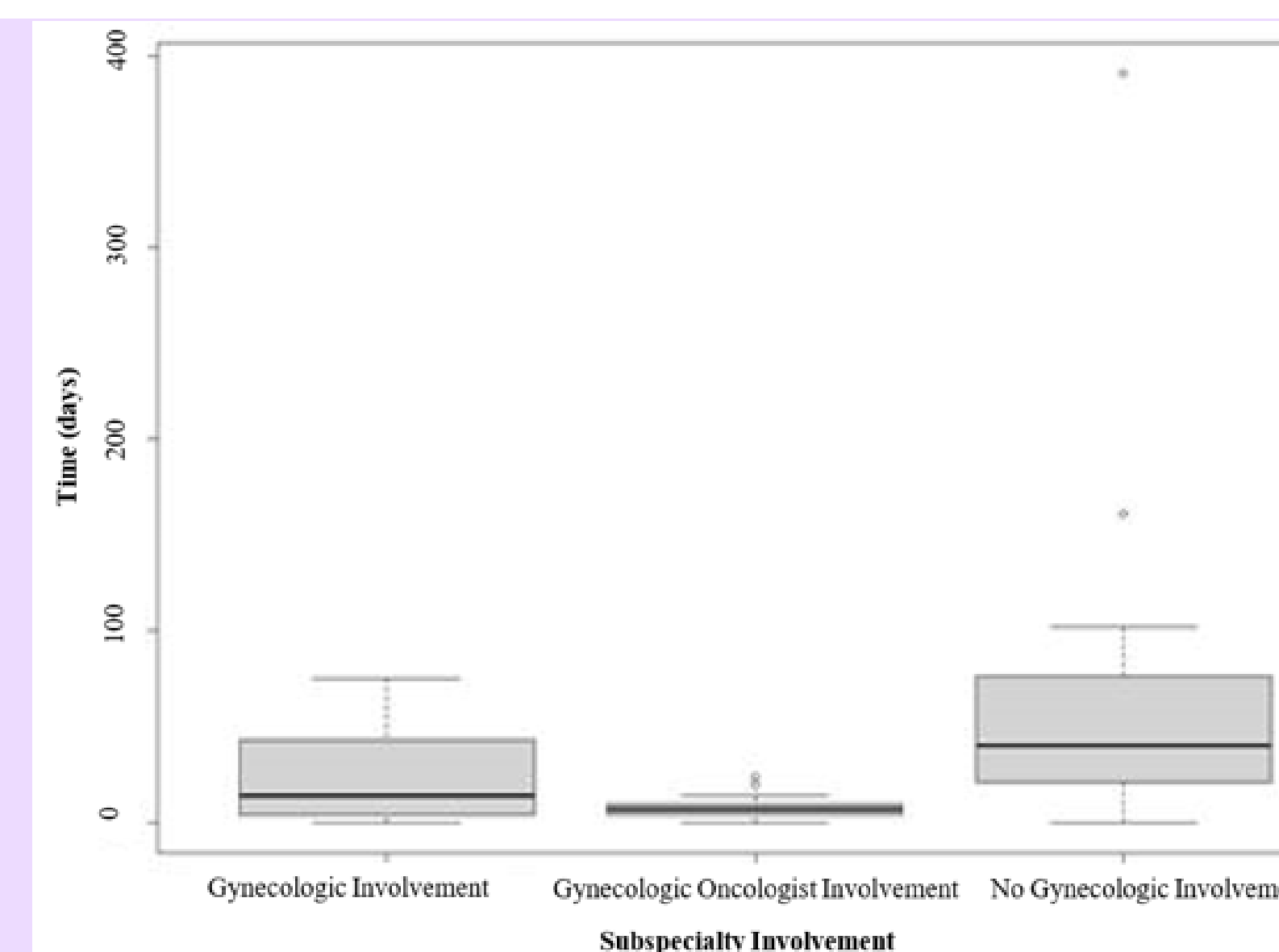


Figure 3. Time between ED visit and Initiation of Treatment

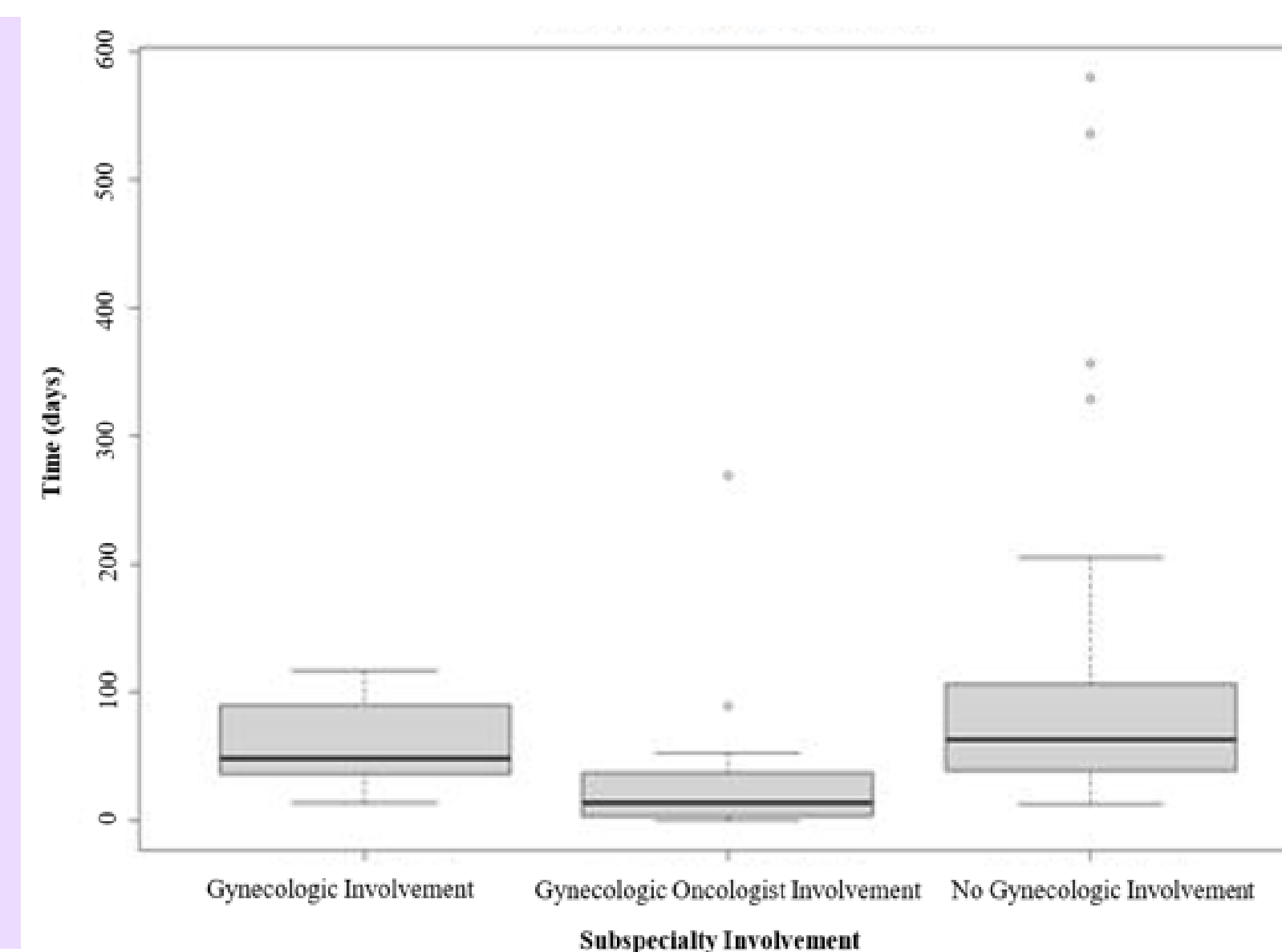


Table 1. Demographics

Demographics	n (%) total: 122	No Gyn Involvement	Gyn Involvement	Gyn Oncology Involvement
Race				
Black	58 (47.5%)	22 (37.9%)	16 (27.6%)	20 (34.5%)
White	37 (30.3%)	19 (51.4%)	5 (13.5%)	13 (35.1%)
Other	27 (22.1%)	15 (55.6%)	4 (14.8%)	8 (29.6%)
Insurance				
Private	24 (19.7%)	13 (54.2%)	4 (16.7%)	7 (29.2%)
Public	74 (60.7%)	31 (41.9%)	15 (20.3%)	28 (37.9%)
None	14 (11.5%)	2 (14.3%)	6 (42.9%)	6 (42.9%)
Unknown	10 (8.2%)			
CCI				
n (S.D.)	3.03 (2.88)	3.17 (2.82)	3.28 (3.02)	2.71 (2.91)

Results

- The mean time until first gynecologic oncology interaction after an ED visit was 8.83, 30.12, and 65.59 days for those with gynecologic oncology, gynecology, and no gynecology interaction in the ED, respectively ($p < 0.001$). See Figure 1.
- The mean time until cancer diagnosis was 7.6, 24.56, and 67.05 days for gynecologic oncology, gynecology, and no gynecology interaction in the ED, respectively ($p=0.036$). See Figure 2.
- There was no significant difference in the time until initiation of treatment between the three groups ($p=0.107$). See Figure 3.
- Of the 122 women referred to gynecologic oncology from the ED, 60 (49.2%) were diagnosed with cancer.
- There were no significant differences in time intervals between the groups due to race, insurance status, or Charleston Comorbidity Index. See Table 1.

Conclusion

This study demonstrates that gynecologic oncology involvement in the ED is associated with a shorter time to gynecologic oncology involvement and diagnosis. Many marginalized groups rely on emergency care to engage with health care; subspecialist availability may be critical to improving outcomes.