A Novel And Breakthrough Way To Collect Thrombosis Risk Assessment Data

By Jibran Bokhary, Anish Joshi, Nethra Pai, Atul Laddu, Ujala Bokhary, and Joseph Caprini; The Global Thrombosis Forum, Suwanee GA, USA and NorthShore University HealthSystem, Evanston IL, USA

GLOBAL THROMBOSIS FORUM

Background/Aims

- Fatal pulmonary emboli remain a leading cause of death postoperatively.
- Most fatalities can be prevented using evidence-based pathways based on a thorough risk assessment tool, such as the Caprini Risk Score (CRS).
- Family history of thrombosis is often under-reported in clinical studies but is a crucial risk assessment component.
- The study aims to determine if data collection by high school students and networking with their families can improve the collection of important variables, including a family history of thrombosis.

Methods

- Data was collected from 1990 USA, UK, and India participants.
- High school students qualified through the CITI program, and a nurse used a patient-friendly CRS information form to collect data.
- Participants > 18 years who could follow instructions on www.caprinriskscore.org were enrolled.
- The research team was blinded to the participants' identity.

Methods, Continued

- The study was approved by the IRB of DePaul University, Chicago, IL.
- Data was entered into a secure database for analysis.
- Participants were encouraged to share results with their physicians to establish a baseline risk level.
- VTE risk was categorized into four levels: low (0 ~ 1 points), moderate (2 ~ 4 points), high (≥5 points), and very high (9 + points).

Table 1: Characteristics of the population

Males	1011 (50.8%)
Females	979 (49.2%)
Age > 40 years	1047 (52.6%)
African Americans	342 (17.2%)
Caucasians	398 (20.0%)
Latinos / Hispanics	253 (12.7%)
Females on OC's	694 (34.9%)
Smokers	338 (17.0%)
Diabetics	519 (26.1%)
IBD	344 (17.3%)
Family History of Blood Clots	529 (26.6%)
Age >75	796 (40%)
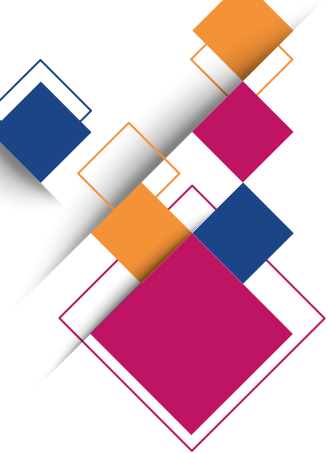
Table 2: Caprini Risk Score in our study

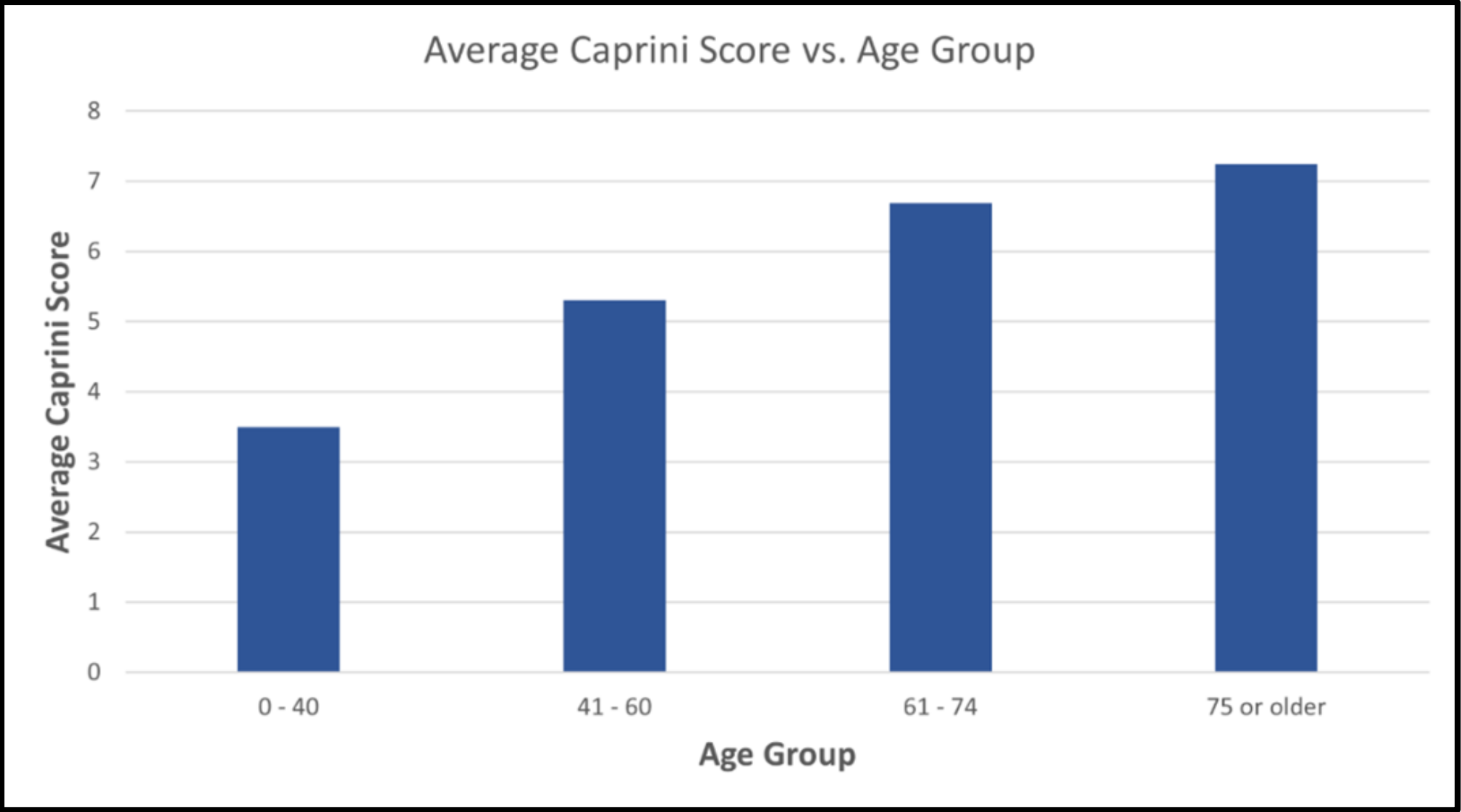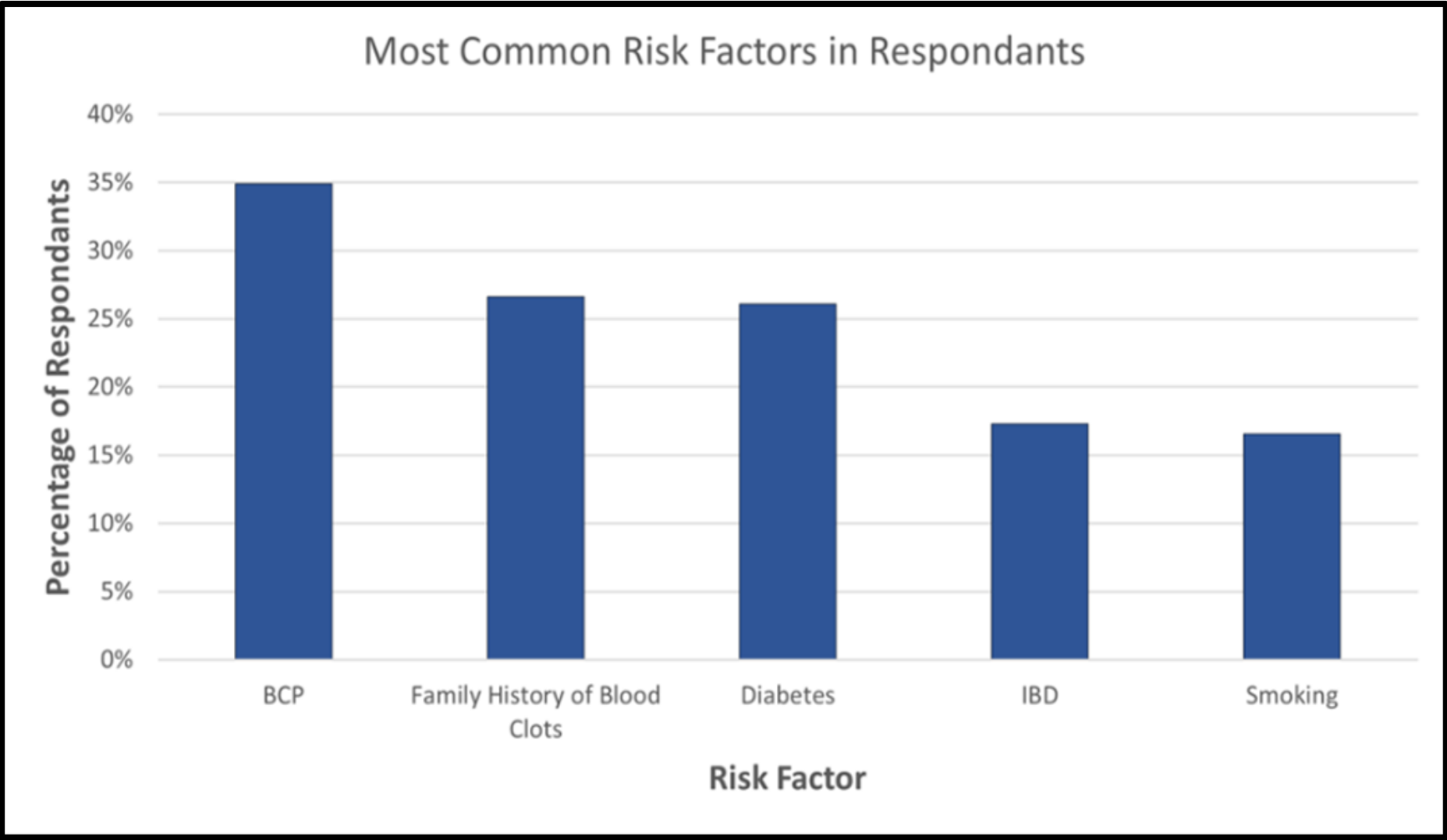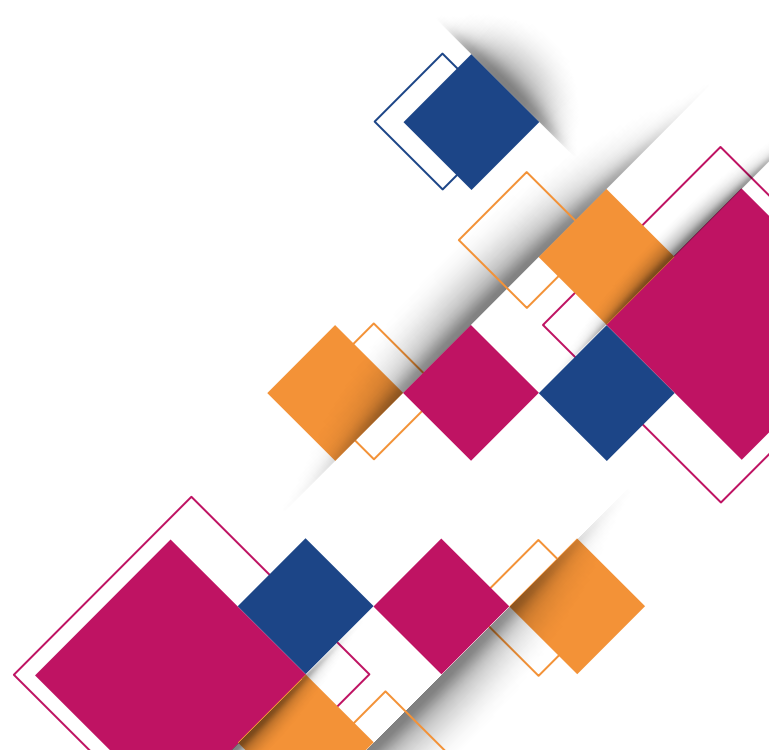| Average CRS	4.93 ± 3.17
CRS 0-4	987 (49.6%)
CRS 5-8	846 (42.5%)
CRS >9	159 (8.0%)

Figure 1: CRS vs Age Group

Figure 2: Most common risk factors in respondents (BCP=Birth Control Pills)

Results

- 529 out of 1990 participants (26.6%) reported a family history of blood clots.
- The average CRS was 7.4 for participants > 75 years of age.
- 34.9% of female participants recorded contraceptive (BCP) use.
- The incidence of IBD was 17.3%.
- Diabetes incidence was 26.1%.
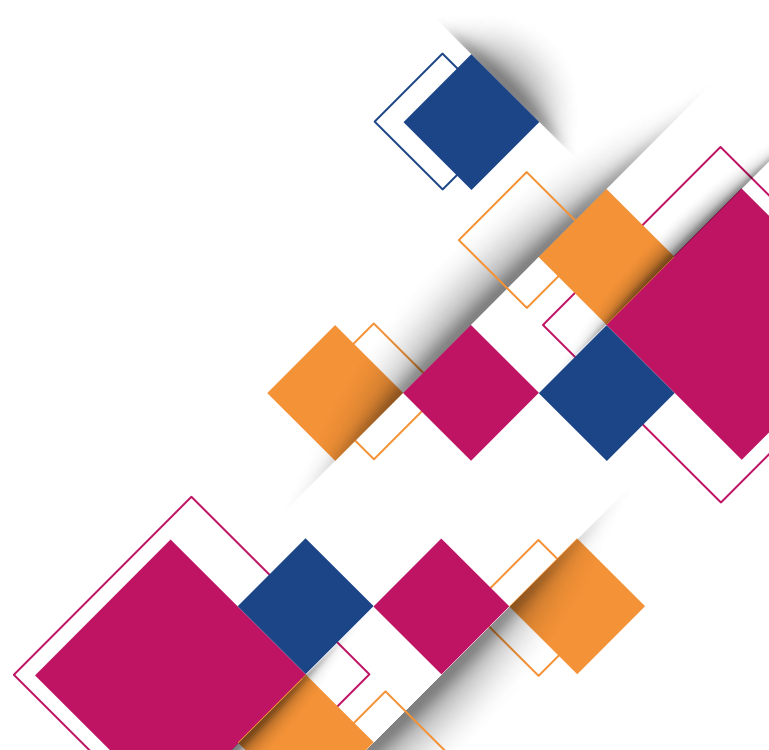- 17% of participants were smokers.

Conclusion

- Family history of blood clots under-reported in clinical studies was found in **26.6%** of our respondents.
- Striking incidence of IBD, diabetes, contraceptive use was found in our population.
- Elderly are predisposed to higher incidence of VTE (CRS: 7.4).
- Knowing the CRS and risk factors ahead of time is crucial for lowering the incidence of VTE.

Conclusion, Continued

- The study provides a valuable data platform for nurses, often the first consulted for advice on illnesses or planned procedures.
- Patients should keep a copy of the CRS with their physicians.
- Future studies are needed to validate the responses, but this method offers a novel way to collect risk assessment data.
- High school students played a significant role in data collection by engaging with friends and family.

References

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