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# Solving a problem with forensic sexual assault exams

*“After a rape, forensic nurses fully document sexual assault victims’ injuries by using a dye that causes lacerations and tears on the skin to “light up.” But the dye—a dark blue—doesn’t show on people of color, and that often means the perpetrators go free. Research has repeatedly found that black women who are raped are much less likely to move through the criminal justice system than their white peers, which may be due in large part to the way the dye works—or doesn’t work—on them.”*

Marilyn (Lynn) Sommers, PhD, RN, FAAN, the Lillian S. Brunner Professor of Medical-Surgical Nursing at the University of Pennsylvania and Director of the Center for Global Women’s Health, has expertise in several domains including the physiological basis of injuries sustained in car crashes and sexual assault. On the whole, her work focuses on interventions on a global scale to advance women’s health. She has authored several books and more than 100 other publications, including the foundational curriculum for the certification exam for the American Association of Critical Care Nurses. Among her many honors are the Founders Award from Sigma Theta Tau International, the Journal of Forensic Nursing Writing Award for Excellence in Research, and Outstanding Contributions to Research in Addictions Nursing by the International Nurses Society on Addictions. This Newsletter reports on an interview about her expertise on the relationship between skin color and forensic sexual assault examinations.

## **What is most important to know about skin color and sexual assault examinations?**

Skin color is important because it influences how well we can demonstrate and document certain injuries related to sexual assault. With the most commonly used methods for detecting injuries associated with rape, even with similar injuries, women with light skin show a higher prevalence of visible injury than do women with dark skin. Women who have documented injuries tend to have stronger cases in the criminal justice system so more of their cases go to trial and more of their assailants are convicted and jailed. The field needs examination techniques that better identify sexual assault related injuries in women of color.

## **How can sexual assault forensic examiners better diagnose injury in darker-skinned women?**

Additional training and research are needed. Training for nurses and forensic assault examiners needs to address the differences in clinical findings of injury as a function

of skin color. It also needs to focus on the methods for identifying injury in each skin type. The dye that has been the standard in diagnostic procedures in rape cases reveals injuries clearly in lighter skin, but not in darker skin. Dyes work by contrasting with skin tone; a relatively new alternative to resolve this problem uses fluorescent dyes, which reflect light rather than contrast with skin tone.

## **What are the key implications of your work on this topic?**

We were the first researchers to demonstrate the role of skin color in injuries after sexual assault. This work initiated a line of work on the need to change the technology used in the exams. Prior dermatology research was based on people with white or light skin; our work has alerted researchers and examiners to the importance of skin tones and the need to respond to these differences.

## **How do other academics or forensic examiners know about and use your work?**

We publish our findings in traditional refereed journals. We also contribute to practice-based organizations, especially clinical newspapers for forensic examiners and the criminal justice literature. Therefore, our information reaches not only researchers, but also physicians and prosecutors. The national protocol for sexual assault examinations now mandates that people pay attention to skin color during the examination.

## **What are you working on now?**

Currently we are reviewing this topic by studying injury after sexual assault in a large group of people of different races and ethnicities; we need to know if our initial findings are consistent in larger samples. Expanding our work in this way is a standard method of verifying research conclusions. It is important for junior scientists to recognize the role of skin color and continue our work to improve sexual assault examinations.