



### E76 DNA Evidence Collection and Analysis in Groping Sexual Assault Cases

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**Learning Overview:** After attending this presentation, attendees will have better understand the importance of DNA evidence collection in stranger groping assault cases and best practice guidelines for evidence collection in groping sexual assault cases.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by providing best practice guidelines in DNA evidence collection in stranger groping sexual assault cases.

Within a state database of 4,038 sexual assault kits linking information from evidence collection to DNA analysis findings, 66 groping cases were identified in Utah. Approximately 250 legal or extralegal variables were coded on each case to explore victim and assault characteristics in stranger groping cases. A summary of key variables on the stranger groping cases will be briefly discussed. Information regarding sexual assault kit submission rates in the groping cases will be provided. The DNA analysis findings on groping cases submitted for testing will be shared and compared to DNA analysis findings on sexual assault kits in which victims had contact with body fluids from assailants.

An interesting case report will be reviewed on the successful identification of a serial groper on a university campus from touch DNA analysis findings. An overview of the Short Tandem Repeat (STR) and Y-chromosomal Short Tandem Repeat (Y-STR) DNA results found in this case will be shared to explore the practice implications on evidence collection and analysis in sexual assault groping cases.

The 66 groping cases found in the Utah database represent a mere 1.6% of collected sexual assault kits from 2010 to 2016. The findings from this study and case report support increasing evidence collection in sexual assault groping cases. To address the need to increase evidence collection in stranger groping cases in Utah, an educational program by medical/nursing forensic examiners and forensic scientists has been developed and presented to multiple law enforcement agencies. Information on the educational program and the statewide Touch DNA Evidence Collection Form will be shared with attendees. Key points from a literature review on touch DNA analysis findings in sexual assault cases will be reviewed. Best practice guidelines based upon study findings and literature review in collecting evidence for DNA analysis in stranger groping cases will be presented.

Additionally, this presentation focuses on exploring the benefits of a strong working relationship between medical/nursing forensic examiners with those processing the biological evidence, forensic scientists, to achieve optimal results in DNA findings in sexual assault and stranger groping cases. Collaboration between medical/nursing forensic examiners and forensic scientists is necessary to establish and achieve best practice guidelines for evidence collection in sexual assault cases.

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#### Groping Cases, DNA, Evidence Collection