

**Recovery of Seminal Material from Different Type  
of Cloths after Washing with Commercially  
Available Detergents in Markets of Pakistan**



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**RECOVERY OF SEMINAL MATERIAL FROM  
DIFFERENT TYPE OF CLOTHS AFTER WASHING WITH  
COMMERCIALY AVAILABLE DETERGENTS IN  
MARKETS OF PAKISTAN**

Submitted to University of Management and Technology

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**IN**

**BIOCHEMISTRY**

**BY**

**ASAD SAEED**

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**DEPARTMENT OF LIFE SCIENCES**

**SCHOOL OF SCIENCE**

**UNIVERSITY OF MANAGEMENT AND TECHNOLOGY,**

**LAHORE, PAKISTAN.**

## **DECLARATION**

I **Asad Saeed** s/o **Muhammad Saeed** ID: **15001253007**, Session 2015-2017 hereby declare that the matter printed in the thesis titled“**Recovery Of Seminal Material From Different Type Of Cloths After Washing With Commercially Available Detergents In Markets Of Pakistan**”is my own work and has not yet been printed, published and submitted as research work, thesis or publication in any form in any university, research institution etc. in Pakistan or abroad.

Dated:

**Asad Saeed**

## **DEDICATION**

*I dedicate this thesis*

*to*

*my Parents, without their prayers*

*I would never be able*

*to*

*work hard and gain this achievement*

## SUMMARY

Semen is the most significant evidence that can help to investigate a rape crime. All types of rape crimes (sexual assault, sodomy, rape and murder) includes many types of evidence items such as victim and suspect clothing, bedding at crime scene, on floor and walls, on body of victim and suspect and sometime on different objects like condoms and copper-T. From all these, clothing and bedding are most important as analyst can get complete single source DNA profile of assailant by identifying individual stains. Unfortunately, in a country like Pakistan, where there is no sense to deal with evidence items due to low literacy rate, the chances of recovering sperms from clothing is nearly zero.

In this study, a comparison of sperm retention after washing among different fabrics was done. For this purpose, commercially available detergents and commonly used female and male fabrics were tested and compared results for sperm retention after washing with detergents and distilled water with different washing periods. This study was designed to assess the effect of washing with different time intervals using five detergents available in the market on various fabrics stained with seminal material. Fabrics used in this study were cotton, wool, polyester and mixture of all these with different proportions. Different results were obtained from different detergents used on different fabrics to remove semen stains. Data obtained was analyzed in different aspects with one variable in each aspect.

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In conclusion, I feel feeble and insufficient in vocabulary to discover appropriate words to express my emotions with weepy eyes for my cherishing **Parents** who showed me to venture out, talk the main word and roused me all through of my life, whose hands are constantly raised for petitions which made me effective in each field of my life. They upheld me to accomplish sources in my scholastic undertakings and different circles of life. Their day and night supplications empower me to join higher thoughts of life, taking care of all of issues and helped my good to achieve my objectives.

**Asad Saeed**

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## **1. INTRODUCTION**

Forensic serological examination is an important branch of Forensic Science which deals with the detection and identification of biological fluid. It has become the most important branch now a day as it identifies the types of biological fluid which leads to the selection of most suitable and appropriate evidence item for further DNA analysis. In forensic serology, an analyst deals mostly with murder and rape cases involves blood and semen examination in most cases.