

LIST OF CONTENTS

Contents	Page
TITLE PAGE.....	i
REQUIREMENT SHEET.....	ii
TEST IMPLEMENTATION.....	iii
RATIFICATION BY THESIS ADVISORS.....	iv
RATIFICATION BY DEAN.....	v
DEDICATION.....	vi
ATTESTATION OF AUTHORSHIP.....	vii
ACKNOWLEDGEMENTS.....	viii
LIST OF CONTENTS.....	xii
LIST OF TABLES.....	xiv
LIST OF FIGURES.....	xv
LIST OF APPENDICES.....	xvii
ABSTRACT.....	xviii
INTISARI.....	xix
I. INTRODUCTION.....	1
A. Background.....	1
B. Formulation of Problem.....	6
C. Research Authenticity.....	6
D. Research Objective.....	7
E. Benefits of Research.....	7
II. LITERATURE OVERVIEW.....	8
A. Literature Review.....	8
1. Hairdresser.....	8
2. Hair Products.....	9
3. Harmful Chemicals in Hair Products.....	12
4. Route of Chemical Substances into Hairdressers.....	15
5. Oral Mucosa.....	16
a. Normal Oral Mucosa.....	16

b. Structural Variations of Oral Mucosa.....	17
c. Oral Epithelium.....	20
d. Buccal Epithelium Cells.....	23
6. Nuclear Abnormalities as Biomarkers.....	24
7. Karyorrhexis.....	27
8. Karyorrhexis Cytology on Buccal Mucosa.....	28
B. Theoretical Basis.....	29
C. Hypothesis.....	30
III. RESEARCH METHOD.....	31
A. Research Design.....	31
B. Identification of Variables.....	31
C. Operational Definition.....	32
D. Research Population.....	33
E. Apparatus and Materials.....	34
F. Research Procedures.....	35
G. Analyzation of Data.....	39
H. Research Steps.....	40
IV. RESULTS AND DISCUSSION.....	41
A. Results.....	41
B. Discussion.....	45
V. CONCLUSION AND SUGGESTION.....	52
A. Conclusion.....	52
B. Suggestion.....	52
REFERENCES.....	54
APPENDICES.....	63

LIST OF TABLES

Table	Page
1. Three types of oral mucosa.....	18
2. Major features of maturation of keratinized and nonkeratinized epithelium.....	22
3. Demographic characteristics of Hairdressers and Controls.....	42
4. Normality and homogeneity test on karyorrhexis frequency of hairdresser group and control group ($p \leq 0.05$).....	44
5. Statistical comparison of karyorrhexis frequency between Hairdresser group and control group ($p \leq 0.05$).....	45
6. Summary results of the One-Way ANOVA test among different duration of exposure in hairdresser group ($p \leq 0.05$).....	45
7. Summary results of Tukey HSD test duration of exposure of hairdresser group ($p \leq 0.05$).....	45

LIST OF FIGURES

Figure	Page
1. Oral mucosa.....	17
2. Oral epithelium.....	20
3. Different cell layers of nonkeratinized epithelium.....	21
4. Pathways postulated to produce extra nuclear DNA-containing bodies.....	26
5. Cytological examination buccal mucosa under 400X magnifications using Papanicolaou staining technique, arrow shows karyorrhetic cell.....	28
6. Karyorrhetic cell with Papanicolaou staining.....	38
7. Photomicrograph showing (A) normal cell and (B) karyorrhexis in exfoliated buccal mucosa cells of hairdresser (1000X).....	41
8. Number of karyorrhexis frequency in hairdressers and control subjects.....	43

LIST OF APPENDICES

Appendix	Page
I. Ethical Clearance.....	63
II. Raw Data of the Groups Studied.....	64
III. SPSS Analysis of Data.....	65
IV. Materials and Apparatus used in the study.....	67
V. Procedures for PAP Stain.....	68
VI. Documentation of Research.....	69
VII. Permission Letter Request for Laboratory of Anatomical Pathology, Faculty of Medicine, UGM.....	70
VIII. Permission Letter Request for Research Unit, Faculty of Dentistry, UGM.....	71
IX. Permission Letter Request for Viona Salon.....	72
X. Permission Letter Request for New Topsy Salon Plaza Ambarrukmo.....	73
XI. Permission Letter Request for Bluma Salon.....	74
XII. Permission Letter Request at RSCM Salon Spa & Muslimah Jakal.....	75
XIII. Permission Letter Request for Tom Salon & Spa.....	76
XIV. Permission Letter Request for Vyakta Salon.....	77
XV. Permission Letter Request for K-See Salon.....	78
XVI. Questionnaire.....	79
XVII. Inform Consent.....	82
XVIII. Declaration of completing using the laboratory facilities of Laboratory of Anatomical Pathology, Faculty of Medicine, UGM.....	87
XIX. Declaration of completing using the laboratory facilities of the Research Unit, Faculty of Dentistry, UGM.....	88
XX. Declaration of Complete Research at Viona Salon.....	89

XXI.	Declaration of Complete Research at New Topsy Salon Plaza Ambarukkmo.....	90
XXII.	Declaration of Complete Research at Bluma Salon.....	91
XXIII.	Declaration of Complete Research at RSCM Salon Spa & Muslimah Jakal.....	92
XXIV.	Declaration of Complete Research at Tom Salon & Spa.....	93
XXV.	Declaration of Complete Research at Vyakta Salon.....	94
XXVI.	Declaration of Complete Research at K-See Salon.....	95