**RESEARCH PROPOSAL**

**Title**

**Dental caries and sealant prevalence in children and adolescents in Peshawar Pakistan.**

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**Name of Supervisor: Dr. attaullah**

**Co-Supervisors: Dr. attaullah**

**Duration of Project: 4-6 month after approval**

**Name & Signature of Student/Scholar: Rabia zaman**

**Name & Signature of the Supervisor: Dr. Attuallah**

**Name & Signature of Department Chairman: Dr. Imran khan**

**1. TITLE: (not to exceed 50 words):** Should reflect objective of the study.

Dental caries and sealant prevalence in children and adolescents in Peshawar Pakistan.

**2. INTRODUCTION:** (must include problem statement, background information and rationale 250-300 words)

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| Dental caries is one of the most common preventable childhood diseases; people are susceptible to the disease throughout their lifetime.1–4 It is the primary cause of oral pain and tooth loss.3–5 It can be arrested and potentially reversed in its early stages, but is often not self-limiting and without proper care, caries can progress until the tooth is destroyed.4 Therefore, physicians and other health-care providers should be familiar with dental caries and its causes. The aim of this Seminar is to enhance physicians’ knowledge of the dental caries process and its management; to encourage physicians to incorporate relevant aspects of caries prevention and control into their daily practice, and to educate physicians about when to refer patients to a dentist.   Dental caries is the localised destruction of susceptible dental hard tissues by acidic by-products from bacterial fermentation of dietary carbohydrates.4,6 The signs of the carious demineralisation are seen on the hard dental tissues, but the disease process is initiated within the bacterial biofi lm (dental plaque) that covers a tooth surface. Moreover, the very early changes in the enamel are not detected with traditional clinical and radiographic methods. Dental caries is a multifactorial disease that starts with microbiological shifts within the complex biofi lm and is aff ected by salivary fl ow and composition, exposure to fl uoride, consumption of dietary sugars, and by preventive behaviours (cleaning teeth). The disease is initially reversible and can be halted at any stage, even when some dentine or enamel is destroyed (cavitation), provided that enough biofi lm can be removed. Dental caries is a chronic disease that progresses slowly in most people. The disease can be seen in both the crown (coronal caries) and root (root caries) portions of primary and permanent teeth, and on smooth as well as pitted and fi ssured surfaces  . In Pakistan studies have been carried out on dental caries. Age was considered to be a factor for dental caries. This study is design to look into the Dental caries and sealant prevalence in children and adolescents in Peshawar Pakistan. College and school students from both public and private sectors were selected for this study     . |

**3. OBJECTIVE(S):** (must be stated in measurable terms and starting with an action verb)

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| To determine dental caries and sealant prevalence in children and adolescents in Peshawar Pakistan. |

**5. HYPOTHESIS:** (**If required**): (only the alternate hypothesis must be clearly stated aligned with objective)

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| Dental caries is related to age factor |

**6. Materials and Methods**

**6a. Study Design**

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| Cross sectional study |

**6b. Study Settings**

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| The study will be conducted in both public and private schools and colleges at Peshawar Pakistan. |

**6c. Study Duration**

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| The study will be complete withi4 to 6 month |

**6d. Sample Size:** (with justification of its calculations and reference used):

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| Sample size is ---- it is calculated by Raosoft sample size calculator with following assumptions.  Total population is ---- from 2 to 10 class from schools and 17 to 22 years old in Peshawar Pakistan with margin error 5% and 95% confidence interval. |

**6e. Sampling Technique**

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| Non-probability purposive sampling will be used to recruit the study participate. |

**7. SAMPLE SELECTION**

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| **7a. Inclusion Criteria:** (What type of subjects or material is to be included in the study)   * School children and adolescents aged below 10 for schools and above 23 in colleges * School children and adolescent who were residents in Peshawar * Both male and female |

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| **7b. Exclusion Criteria:** (What type of subjects or material is to be excluded from the study and why excluded)   * Individual suffering from other illness * Individual who were unwilling * Individual with orthodontics brackets and severe extrinsic stains of their teeth. |

**8. DATA COLLECTION PROCEDURE:** (Detailed inclusion of subjects and data collection plan, including briefs about laboratory procedures, surgeries etc. Must clearly explain how the researcher will flow his data collection plan right from start till finishing the follow up on subjects or material.

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| consents were obtained from school and college authorities. A questionnaire was filled, and oral consent from the participated was taken before the study. |

**9. DATA ANALYSIS PROCEDURE**

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| **:** statistical tools were used for this study. SPSS software was the software of choice for this study |

**10. REFERENCES:** In Vancouver style.

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