# BDSA Research Summit Abstract Submission Template

## General Style and Formatting Guidelines

- **Font: Arial**
- **Size of text: 12**
- Write in British Standard English and use complete sentences, formal language, and ensure correct grammar. Maintain a professional, clear, and concise style throughout the abstract.
- Refrain from using references, citations, or graphics within the abstract.

**Submission Format**: Ensure your abstract is in PDF format and follows the above structure. Submit your completed abstract via email to: **bdsaresearchsummit@gmail.com**

## Title

The title should encapsulate the essence of your research in a brief, informative phrase. It is often the first aspect a reader sees, so ensure it clearly reflects your study's primary focus or findings so that readers instantly understand its relevance.

- **Aim for Clarity and Precision**: Use specific language that concisely summarises the core focus of your research.
- **Professional Tone**: Avoid colloquialisms, abbreviations, or acronyms unless they are universally recognised and understood within the field.
- **Structure**: Capitalise the first letter of each major word.

*Mini Example of Title: Assessing the Effectiveness of Virtual Reality in Enhancing Clinical Skills Development Among Undergraduate Dental Students*

## Background

The background section should set the stage for your research, providing essential context that helps readers understand why your research is significant.

- **Establish the Context**: Start by briefly introducing the field or topic area and the general issue your study addresses. Make sure to highlight any pre-existing knowledge.
- **Identify Knowledge Gaps**: Next, identify the gap in current research that your study addresses, explaining what is unknown or underexplored in existing research and how your study seeks to fill this gap.Then explain why this gap is important and what motivates your investigation.
- **Purpose of Study**: Then clearly outline the main objective or hypothesis of the study.

**Tips**:

- Use precise and concise language to avoid unnecessary detail while ensuring readers understand why the study is essential.
- Focus on framing the question that your research aims to answer.

**Example Points to Cover**:

- Why is this topic relevant to dental research or education?
- Specific issue or challenge within the field your study addresses.
- Main aim or question guiding your research.

**Mini Example of Background:** *Virtual reality (VR) technology offers unique, immersive training experiences that are transforming various educational domains, particularly in fields requiring practical skills, such as dentistry. Despite its potential, little quantitative data is available regarding VR's role in improving the practical capabilities of dental students. Specifically, existing literature lacks robust studies that measure VR's impact on essential clinical skills, including procedural accuracy and hand-eye coordination. This study addresses this gap by examining whether VR-based training enhances these competencies in dental education. Understanding VR's efficacy in this context is crucial for developing advanced training strategies to better prepare students for clinical practice.*

## Method

The method section should provide a clear, precise description of how the study was conducted, enabling others to replicate it if desired.

- **Design**: Describe and outline the overall structure of your study design, including whether it was experimental, observational, or another type.
- **Participants**: Summarise key characteristics of participants, sample size, and inclusion/exclusion criteria, if applicable.
- **Procedure**: Outline the main procedures / interventions, techniques, or data collection methods and tools used.
- **Data Analysis**: Describe how you analysed the data, including any statistical or qualitative tests and software or instruments used in analysis.

**Tips**:

- Be concise while including enough detail to understand the approach.
- Avoid over-explaining routine procedures; instead, focus on methods directly impacting the study's reliability or validity.

**Example Points to Cover**:

- Type of study and participant details (e.g. randomised control trial with 100 dental students).
- Data collection tools or methods (e.g. surveys, imaging software).
- Analytical approach and significance level (e.g., ANOVA with $p<0.05$).

**Mini Example of Method:** *This controlled experimental study included 80 second-year dental students, randomly assigned to either a VR-based training group or a control group using traditional simulators. Training sessions on cavity preparation were held weekly over six weeks. Skill acquisition was measured using a standardised scoring rubric to assess procedural accuracy and hand-eye coordination. Data analysis involved paired t-tests to compare mean scores between the VR and control groups, with statistical significance set at $p<0.05$. This design allows a rigorous comparison of VR's effectiveness relative to traditional training in enhancing clinical competencies.*

## Results

The results section is the most critical part, as it presents the key findings from your study. summarise key findings in a clear, concise manner, emphasising data that directly supports your conclusions.

- **Report Key Findings**: Focus on the most significant outcomes related to your research question without including extensive numerical data.
- **Quantitative Data**: If applicable, provide statistical values or percentages to illustrate important trends or differences.Use concise language to highlight statistical significance and any observed differences or correlations, providing enough detail to convey the impact of your findings without overwhelming the reader
- **Avoid Interpretations**: This section should objectively present data without drawing conclusions. Avoid interpretations, as these belong in the conclusion; instead, stay focused on reporting what you found. Where possible, use actual values or percentages to clarify significant results.

**Tips**:

- Be succinct; focus on essential results that convey the core findings.

**Example Points to Cover**:

- Statistical outcomes or significant differences observed.
- Numerical or percentage increases, decreases, or correlations.
- Highlights of data directly relevant to the hypothesis.

**Mini Example of Results:** *The VR training group showed a 25% higher procedural accuracy score than the control group (mean: 88% vs. 63%, p=0.02). Additionally, hand-eye coordination improved by 15% in the VR group, with no significant improvement observed in the control group. These findings suggest that VR-based training significantly enhances both procedural accuracy and hand-eye coordination, supporting its role as an effective method for developing practical clinical skills.*

## Conclusion

The conclusion should  succinctly encapsulate the main findings, their significance, and the potential implications or next steps in research or practice. The conclusion should give readers a clear understanding of the study's impact and how it advances knowledge in the field.

- **Summarise Main Outcomes**: Restate the primary finding(s) and their relevance to the research question and its significance within the broader context of dental education.
- **Implications**: Discuss and suggest how your results contribute to existing knowledge or directions for future research.
- **Future Directions**: Suggest areas for further study or practical applications, if relevant.

**Tips**:

- Avoid introducing new data or tangents here; keep the focus on the take-home message.
- Frame the conclusion to give readers a clear understanding of the study's impact on the field.

**Example Points to Cover**:

- Key finding and its relevance (e.g. VR training improves procedural skills in dental students).
- Implications for practice, education, or further research.
- Brief statement of how the findings may advance understanding or impact the field.

**Mini Example of Conclusion:** *This study found that VR-based training significantly enhances key clinical skills in dental students, specifically procedural accuracy and hand-eye coordination, compared to traditional training methods. These results support the inclusion of VR as a valuable supplement to conventional dental training, offering students increased opportunities for hands-on skill development. Future research should explore the long-term retention of skills acquired through VR and investigate its effectiveness across various clinical procedures. As dental education advances, VR may become a valuable asset in preparing students for clinical proficiency.*