

THESIS

**THE RELATIONSHIP BETWEEN ARTIFICIALLY SWEETED DRINKS
AND JUNKFOOD CONSUMPTION HABITS AND THE RISK OF
HYPERGLYCEMIA IN ADOLESCENTS AT STATE SENIOR
HIGH SCHOOL 1, BENGKULU CITY, 2026**



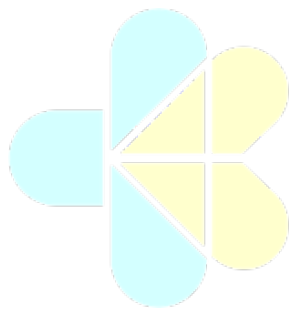
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**MINISTRY OF HEALTH OF THE REPUBLIC OF INDONESIA
BENGKULU HEALTH POLYTECHNIC UNDERGRADUATE
APPLIED NURSING MAJORS
NURSING SCHOOL YEAR
2025/2026**

THESIS TITLE PAGE

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HIGH SCHOOL 1, BENGKULU CITY, 2026**

**This thesis is submitted as one of the requirements
To obtain an Applied Bachelor's Degree in Nursing (S.Tr.Kep)**



**Kemenkes
Poltekkes Bengkulu**

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**THE RELATIONSHIP BETWEEN ARTIFICIALLY SWEETENED
DRINKS AND JUNK FOOD CONSUMPTION HABITS AND THE RISK
OF HYPERGLYCEMIA IN ADOLESCENTS AT STATE SENIOR HIGH
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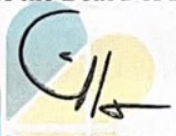
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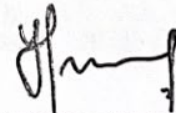

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Declare that this is my own work (ORIGINAL), and that the content herein does not contain any work that has ever been submitted by another person to obtain an academic degree in an educational institution, and to the best of my knowledge there are no works or opinions that have ever been written and/or published by others, except those that are referred to in writing in this manuscript and mentioned in the bibliography.

Thus this statement and if in the future it is proven that there is an element of plagiarism, then I am willing to take responsibility in accordance with the applicable provisions.

Bengkulu, 2026
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MOTTO AND PRESENTATION

MOTTO

"Don't be afraid to walk slowly, be afraid to stop walking."

"Everything you lose is a step you take." -Taylor Swift

PRESENTATION

I present this thesis to:

- ❖ To my parents who I love the most, to my Dad my first love this part is the hardest part for me to write. Your departure leaves an empty space that is never truly filled. There are longings that cannot be conveyed through messages, cannot be treated with meetings, and can only be entrusted through prayer. Many days I pass hoping to hear your voice again, ask your advice once more, or just see you smile at me. If today I am able to stand this far, it is because of the love, life values and example that my father once instilled in my life. You remain alive in the prayers I pray, and in every success I have. To my beloved mother, thank you for every prayer you never forget to pray for me, every tear you secretly hide. Thank you for always believing in me, even when I myself doubt my abilities. This work may not be perfect. But with all humility, I dedicate this work to you, thank you for being my first home, my home, and my biggest reason not to give up.
- ❖ Thank you to my brother as my brother and the only brother of the writer, thank you for taking so many burdens to still be able to pursue my dreams. Thank you for all the sacrifices, support, and affection that never stops and is one of the reasons the author can continue to step forward and complete this education.
- ❖ To the only family friend in this lecture, the author would like to thank you for being part of this long journey, becoming a home in the midst of the fatigue of struggle. Thank you for every support, laughter, help, and togetherness created. Thank you for being the best friend that has always existed. You have proven that differences are not an obstacle to keep walking together, holding each other and strengthening each other in every step of life.
- ❖ To someone whose favorite food is fried rice that has accompanied him since white and gray until this thesis was written, thank you for accompanying so many versions of the author, understanding and support until finally to this point. The interaction and togetherness that exists provides valuable learning in the process of self-maturation. All the support and kindness that has been given has contributed positively to the formation of the author's understanding attitude.
- ❖ The "don't do it" group, thank you for being part of this journey. With you, every challenge feels easier, and every step becomes stronger. Thank you for laughter in the midst of tiredness, enthusiasm when you almost give up, and so meaningful togetherness during difficult times.

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- ❖ To my comrades in the class of 2022 Bachelor of Applied Nursing who pioneered the international class, thank you for the cooperation that we have gone through together to complete this lecture.
- ❖ Thank you to the research respondents who have participated and taken the time during the research.
- ❖ *Last but not least* for someone who learns to stand on his own, tread a path that is not always straight, and put the rest of his courage to survive; The author himself is Ivo Risa Putri Gandari. Thank you for arriving. Thank you for being done. Only this self knows how much fatigue he bears himself, how much burden is heaped, and even the economic situation that almost makes him give up. Strong determination was able to carry this self through so many difficult things to get to where we are now. Thank you for not choosing to stop. *Love your self as you are.*

FOREWORD

Praise be to Allah SWT who has given His grace and grace, so that the author can complete this thesis with the title “The Relationship Between Artificially Sweetened Drinks and Junkfood Consumption Habits and The Risk of Hyperglycemia in Adolescents at State Senior High School 1, Bengkulu City, 2026” — In completing this thesis, the author received a lot of material and moral assistance from various parties, for which the author would like to thank the:

1. Mrs. Linda, SST., M.Kes, as the Director of the Health Polytechnic of the Ministry of Health Bengkulu
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5. Mrs. Ns. Husni, S.Kep., M.Pd as the Chairman of the Board of Examiners who has provided criticism, suggestions and constructive input so that this thesis can be refined and compiled properly.
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7. As well as all Lecturers and Staff of the Department of Nursing of the Ministry of Health of the Ministry of Health, the learning experience and guidance I received from Mrs. and Mrs. are some of the most valuable things in my educational journey.

I realize that this thesis certainly still has many shortcomings and mistakes both in writing and preparation. hopefully it can have a positive impact both for the target, the research location, the Department of Nursing and for myself.

Bengkulu, 02 July 2025

Ivo Risa Putri Gandari



**THE RELATIONSHIP BETWEEN ARTIFICIAL SWEETENED
BEVERAGE CONSUMPTION HABITS AND *JUNKFOOD*
AGAINST THE RISK OF *HYPERGLYCEMIA* IN
TEENAGER AT SMA NEGERI 1
BENGKULU CITY 2026**

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ABSTRACT

Background: Hyperglycemia in adolescents is one of the conditions that can increase the risk of developing type 2 Diabetes Mellitus in the future. The habit of consuming artificially sweetened drinks and junk food is a factor that is suspected to play a role in increasing blood glucose levels in adolescents. **Objective:** This study aims to determine the relationship between the consumption habits of artificially sweetened drinks and junk food to the risk of hyperglycemia in adolescents at SMA Negeri 1 Bengkulu City. **Methods:** This study used an analytical quantitative design with a cross sectional approach. The research sample amounted to 194 respondents who were selected using the Accidental sampling technique. Data was collected using the Beverage Intake Questionnaire (BEVQ), Food Frequency Questionnaire (FFQ), and blood glucose checks at any time. Data analysis used the Chi-Square test with a 95% confidence level ($\alpha = 0.05$). **Results:** The results showed that 92.3% of respondents had a habit of consuming high-category artificially sweetened beverages and 22.2% had a habit of consuming junk food in the frequent category. As many as 58.2% of respondents were included in the hyperglycemia risk group. The results of the Chi-Square test showed that there was no significant association between the consumption of artificially sweetened beverages and the risk of hyperglycemia ($p = 0.688$; OR = 1.242), while there was a significant association between junk food consumption and the risk of hyperglycemia ($p = 0.000$; OR = 4.942). **Conclusions:** Junk food consumption habits are associated with an increased risk of hyperglycemia in adolescents, whereas artificially sweetened beverage consumption habits do not show a significant association with hyperglycemia risk. **Tip:** Adolescents are expected to limit junk food consumption and implement a healthy and balanced diet as an effort to prevent hyperglycemia and Diabetes Mellitus from an early age.

Keywords: hyperglycemia, junk food, artificially sweetened drinks, adolescents.

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ABSTRACT

Background: Hyperglycemia in adolescents may increase the risk of developing type 2 diabetes mellitus later in life. Consumption of sugar-sweetened beverages and junk food is suspected to contribute to elevated blood glucose levels. **Objective:** This study aimed to determine the association between sugar-sweetened beverage and junk food consumption habits and the risk of hyperglycemia among adolescents at SMA Negeri 1 Kota Bengkulu. **Methods:** A quantitative analytic study with a cross-sectional design was conducted among 194 respondents selected through Accidental sampling. Data were collected using the Beverage Intake Questionnaire (BEVQ), Food Frequency Questionnaire (FFQ), and random blood glucose measurements. Data were analyzed using the Chi-square test at a 95% confidence level ($\alpha = 0.05$). **Results:** High sugar-sweetened beverage consumption was found in 92.3% of respondents, while 22.2% frequently consumed junk food. Junk food consumption was significantly associated with hyperglycemia risk ($p < 0.001$; OR = 4.942). **Conclusion:** Junk food consumption increases the risk of hyperglycemia among adolescents. **Recommendation:** Adolescents are encouraged to reduce junk food intake and adopt healthier eating habits to prevent hyperglycemia and diabetes mellitus.

Keywords: hyperglycemia, junk food, artificially sweetened beverages, adolescents.

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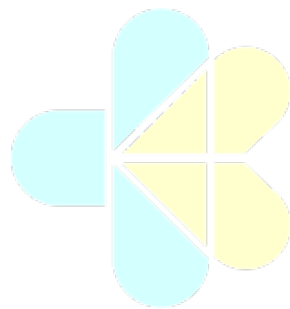
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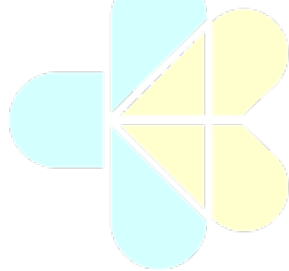
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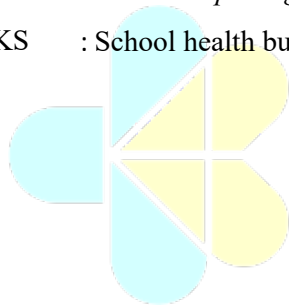
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ABBREVIATION LIST

WHO	: <i>World Health Organization</i>
IDF	: <i>International Diabetes Federation</i>
SSBs	: <i>Sugar Sweetened Beverages</i>
SKI	: <i>Indonesian Health Survey</i>
DM	: <i>Diabetes Melitus</i>
IMT	: <i>Body Mass Index</i>
HDL	: <i>High Density Lipoprotein</i>
FFA	: <i>Free Fatty Acids</i>
BEVQ	: <i>Beverage Intake Questionnaire</i>
FFQ	: <i>Food Frequency Questionnaire</i>
GDS	: <i>Blood Glucose During</i>
PTM	: <i>Non-Communicable Diseases</i>
SPSS	: <i>Statistical package for the social science</i>
UKS	: <i>School health business</i>



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