

## **THE CORRELATION BETWEEN THE PERCEPTION OF SAINT MARY'S UNIVERSITY JUNIOR HIGH SCHOOL AND SENIOR HIGH SCHOOL STUDENTS ON THE QUALITY OF LIFE AND THEIR ADHERENCE TO THE MANAGEMENT OF ACNE**

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### **ABSTRACT**

Despite the recognized impact of acne on adolescents' psychosocial well-being, limited research has examined the direct relationship between perceived quality of life and adherence to acne management among adolescents. This study addresses this gap by investigating the correlation between perception of quality of life and adherence to acne management among students at Saint Mary's University. Employing a descriptive-correlational research design, the study used standardized questionnaires to assess students' perceived quality of life and adherence to acne management practices. The results indicated that while most respondents reported a high quality of life, adherence to acne management ranged from moderate to high. Statistical analysis revealed a significant positive correlation between the two variables, suggesting that students with a higher perceived quality of life are more likely to follow acne treatment regimens consistently. These findings highlight the need for integrated health education programs that address dermatological concerns and promote psychological well-being to enhance treatment adherence among adolescents.

*Keywords:* Adolescent, compliance, skin care, self-upliftment, self-esteem

### **INTRODUCTION**

Acne is a common dermatological condition that affects millions worldwide, particularly among adolescents and young adults (Lynn et al., 2016). According to the statistical data from Bologna et al. (2012), acne vulgaris affects approximately 85% of young adults aged 12 to 25 years. Acne manifests as a multifactorial skin disorder characterized by the formation of comedones, papules, pustules, and, in severe cases, nodules and cysts (Bhate & Williams, 2013). In addition, according to Heng and Chew (2020), acne onset typically correlates with puberty; thus, prevalence rises in teenagers, and while severe acne is more common in older teenagers and males, females may experience earlier onset and higher prevalence at younger ages.

Beyond its physical manifestations, acne can have a profound impact on individuals' psychological and emotional well-being (Gallitano & Berson, 2017). Although it is not a life-threatening condition, it cannot be ignored that it significantly influences an individual's perception of their quality of life (QoL). Previous studies have explored the associations among age, gender, and acne severity and QoL among Filipino high school students (Bernal & Sanchez, 2017). The cited studies require a deep understanding of their underlying causes and various treatment modalities, as well as a commitment to individualized care. By combining education, communication, and positive role models, these studies can empower young individuals to adhere to their treatment plans and improve their QoL.

According to the Johns Hopkins Arthritis Center, HRQoL examines how health affects a person's ability to live a fulfilling life. It also includes how existing diseases and treatments affect everyday functioning. The study done by Tasneem et al (2023) concludes a relationship between acne severity and high plausibility of incurring depressive symptoms. Lastly, it has been identified that seven main areas of HRQoL are affected by acne: emotional functioning, social functioning, relationships, leisure activities, daily activities, sleep, and school/work (Fabbrocini

et al., 2018).

In terms of adherence, several factors overlap in how people with acne adhere to treatment or management. Hayran et al. (2021) determined two key factors: treatment regimen and patient satisfaction. Both concepts are subordinate. The treatment regimen must be able to accommodate the severity or condition of acne whilst minimizing unwanted side effects. To increase the likelihood of adherence, the regimen should yield results that satisfy the patient. Ling et al. (2023) suggest that there should be increased knowledge of acne and its treatment among people with acne, as poor knowledge has been reported as a leading cause of poor adherence. Sources of knowledge about acne are also a key factor, according to Lagda et al. (2017). Family and friends were the leading sources of information, followed by the internet.

Brajaca et al. (2004) have considered increased patient understanding to be equivalent to improved compliance, and thus to a higher positive treatment effect. In addition, Lagda et al. (2017) reported that there is a need to educate patients with acne to avoid misconceptions that lead to inappropriate treatment. Hazarika et al. (2016) included self-consciousness as one criterion for measuring the impact of acne on QoL, whilst considering the psychosocial domain.

Like many adolescents, Saint Mary's University Junior High School (SMU-JHS) students, namely the ninth and tenth graders, as well as the Senior High School (SMU-SHS) students, are at the age of puberty, facing the struggles of having acne. While there is a growing body of research on the psychosocial impact of acne, limited attention has been given to understanding how students perceive their quality of life in the context of acne and how this perception might correlate with their adherence to acne management. This knowledge gap is crucial since it has implications for healthcare professionals, educators, and policymakers. In relation to this, this study examined the relationship between adherence to acne management practices and perceived health-related quality of life among students at SMU Junior and Senior High School so that an intervention plan can be developed to foster self-esteem, enhance psychological resilience, and ultimately motivate students to engage more consistently in effective acne management practices.

### **Statement of the Problem**

The general objective of the study is to investigate whether there is a correlation between the perceptions of SMU JHS and SHS students enrolled for the school year 2024-2025 regarding their adherence to acne management and acne-related QoL. Data collection, using survey questionnaires, was conducted in February 2025, and it sought answers to the following specific problems:

1. What is the students' adherence to acne management in terms of:
  - a. age; and
  - b. biological sex?
2. What is the students' perception of their quality of life in relation to acne?
3. Is there a significant relationship between the adherence of the respondents to acne management and their perception of quality of life?
4. Which recommended self-esteem-boosting programs for people with acne can be applied to?

### **METHODOLOGY**

This study employed a sequential-explanatory mixed-methods design to determine respondents' perceived QoL and adherence to acne management. This study was conducted at the Junior High School Department and the Senior High School Department of Saint Mary's University, located in Bayombong, Nueva Vizcaya.

The respondents were Grades 9-12 students. The sampling method used is stratified sampling, in which the population is divided into distinct groups, such as age and sex. To ensure equitable representation across all year levels, further computation using proportional allocation was conducted. To be included, respondents need to have certain characteristics, such as those who have experienced acne in the past or are currently experiencing acne at the time of data collection. Their experiences with acne provide sufficient knowledge of its management. Whether the acne was previously diagnosed or not, their understanding of acne management was a valuable consideration when answering the questionnaires, which provided the information needed for this study.

**Table 1***Sample Size and Total Population per Year Level*

	<i>Grade Level</i>	<i>Population Number</i>	<i>Sample number of respondents</i>
<i>JHS</i>	9	190	<b>34</b>
	10	166	<b>30</b>
<i>SHS</i>	11	455	<b>81</b>
	12	954	<b>171</b>
<b>TOTAL</b>		1765	<b>316</b>

The Morisky Medication Adherence Scale 8 (MMAS-8) is used to assess respondents' adherence in managing their acne, based on selected demographic criteria, particularly age and biological sex. This study also used a modified version of MMAS-8, focusing on adherence to acne management rather than solely on medical treatment. To assess the quality of life of respondents with acne, the Cardiff Acne Disability Index (CADI) is used, consisting of 5 items. Both MMAS-8 and CADI underwent pilot testing and reliability analysis by an accredited Quantitative Data Analyst at the University Research Center of Saint Mary's University. Using Cronbach's Alpha reliability statistics, the MMAS-8 showed good internal consistency ( $\alpha = 0.884$ ). This shows that the modified MMAS-8 is indeed reliable in assessing respondents' adherence to acne management. On the other hand, CADI achieved a reliability score of  $>0.71$ , indicating acceptable internal consistency.

The researchers coordinated with the school principal by presenting a letter addressed to the institution, requesting permission for their students to participate in the data collection. The researchers ensured that the data were protected for confidentiality. Once all the data had been gathered, the researchers ensured the data's privacy. Descriptive statistics, including means and standard deviations, were calculated to summarize the adherence to acne management and QoL scores among the SMU JHS and SHS students. Hypothesis testing and regression analysis were performed to investigate the relationship (Pearson's  $r$ ) between QoL and acne management adherence.

## RESULTS AND DISCUSSION

### Section 1. Students' Adherence to Acne Management in terms of Age and Biological Sex

**Table 2***Students' Adherence to Acne Management in terms of Age*

<i>Adherence</i>	<i>14 years old</i>	<i>15 years old</i>	<i>16 years old</i>	<i>17 years old</i>	<i>18 years old</i>	<i>19 years old</i>	<i>20 years old</i>
<b>High</b>	0 (0%)	6 (14.63%)	54 (77.14%)	5 (6.10%)	5 (5.05%)	0 (0%)	0 (0%)
<b>Medium</b>	5 (27.78%)	6 (14.63%)	11 (15.71%)	12 (14.63%)	9 (9.09%)	2 (50%)	0 (0%)
<b>Low</b>	13 (72.22%)	29 (70.73%)	5 (7.14%)	65 (79.27%)	85 (85.86%)	2 (50%)	2 (100%)
<b>Total</b>	18	41	70	82	99	4	2

	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
<b>Median</b>	Low	Low	High	Low	Low	Low/Medium	Low

Table 2 shows the adherence to acne management among the 316 students of varying ages. Notably, adherence levels are categorized into high, medium, and low. The majority of 14-year-old students showed low adherence to acne management, indicating significant obstacles to following a prescribed routine. Notably, of the 70 total 16-year-old students, 54 (77.14%) had high adherence, 11 (15.71%) had medium adherence, and 5 (7.14%) had low adherence. There is a significant increase in high adherence among this age group of students compared to younger students, suggesting that maturing students are more likely to engage in acne management.

The results indicate that adherence to acne management is generally low among younger students, with a significant increase in adherence levels at age 16. This progress, however, is not sustained in subsequent years, as students aged 17 and older usually return to low levels of adherence. To support the presented results, selected respondents were interviewed to obtain supporting information regarding their adherence. A Grade 9 respondent admitted, *"May pinanghihilamos po ako na sabon na binibili ni mama. Hindi po ako sigurado kung anong brand yun.* (I use the soap that my mother buys to wash my face. I am not sure of the brand." This suggests a possible lack of knowledge about specific treatments. They also mentioned, *"Opo, lalo na po kapag pagod na ako galing school o nakatulog agad* (Yes, especially if I am tired, having come from school or I have fallen asleep)." confirming forgetfulness as an obstacle. A Grade 10 student echoed this sentiment, *"Kapag busy sa school o kaya kapag feeling ko okay na ulit balat ko* (If I am busy in school or if I feel that my skin is great)", highlighting the effects of school obligations and the symptom self-management belief. Some students reported discontinuing their routine when they noticed their skin was getting better. As one Grade 11 student described, *"Hindi ko na po minsan tinutuloy yung routine ko kasi feeling ko hindi ko na kailangan* (I do not continue with my skin routine because I sometimes feel I do not need it anymore)." Another Grade 12 student added, *"Kapag sobrang pagod galing school or feeling ko okay nanaman like wala akong breaouts ganun po* (If I am tired, having come from school or when I see that I do not have skin breakouts)." This indicates a misunderstanding of the need for ongoing, long-term acne control, even when symptoms are not immediately visible. The interview also uncovered practical issues. A Grade 10 student said, *"Madalas nakakalimutan ko na dalhin lalo na pag nagmamadali po* (I often forget about it, especially when I am in a rush)." The cost and hassle of keeping up with a routine was also pointed out by a Grade 11 student, *"Yung consistency po madali magsimula pero mahirap panindigan. Also, yung pag-maintainbpo ng mga products lalo't pag hiyang ng face ko syemore po hindi rin mura yung mga products* (Consistency is an issue. It is easy to start a skin routine, but keeping it up is a challenge. Also, it is a challenge to maintain some product brands that go well with my skin because they are costly."

These results are consistent with the available literature on adherence to acne therapy. Kouotou (2022) found that 51.3% of participants demonstrated low adherence, while Furue (2014) reported even higher rates at 75.5%. In relation to the research conducted by Hester et al. (2015), they discovered that the adherence to acne medications was significantly lower in children than in adolescents. Specifically, only 3.71% of children and 13.38% of adolescents were considered in compliance. This corroborates the observed trend of low adherence among younger students and modest improvement among older adolescents.

**Table 3**  
*Students' Adherence to Acne Management in terms of Biological Sex*

<b>Adherence</b>	<b>Male</b>	<b>Female</b>
<b>High</b>	10 (7.69%)	11 (5.91%)
<b>Medium</b>	7 (5.38%)	38 (20.43%)

<b>Low</b>	113 (86.92%)	137 (73.66)
<b>Total</b>	130 (100%)	186 (100%)
<b>Median</b>	Low	Low

Table 3 shows data comparing adherence to acne management among 130 male and 186 female students. The entire group of 113 males (86.92%) demonstrated low adherence, suggesting that the majority struggle to adhere to prescribed acne management protocols. In contrast, female students demonstrated slightly improved adherence, with 11 students (5.91%) achieving high adherence and 38 students (20.43%) classified as having medium adherence. This indicates that, irrespective of biological sex, a significant proportion of students are not adequately following their acne management, underscoring the necessity for targeted interventions to enhance adherence among adolescents. As stated by a female respondent during the interview, "*Kapag may assurance po na safe gamitin yung pangskin care routine o kahit sabon po* (If there is assurance that the skincare product or soap is safe to use)" when asked what would help them to take better care of their skin. With the same question, a male respondent answered, "*Kapag pinasimple siguro yung steps. Ang hirap kasing intindihin yung gamit ng mga products. Complicated siyang sundan kaya minsan nakakatamad din* (Maybe if the step is simplified. It's quite a challenge to comprehend the usage of the products. They can be so complicated that I feel lazy to do them)." This implies that some factors affecting female respondents' adherence are side effects or adverse effects. In contrast, for male students, it is the complexity of management.

In the study by Moradi Tuchayi et al. (2016), they discussed problems associated with acne treatment adherence, including lack of knowledge, confusion about use, weak physician-patient relationships, fear of adverse reactions, and cost. Moreover, they also discussed solutions such as treatment simplification, technology, and dynamic education. They emphasized that recognizing these problems and finding appropriate solutions is crucial for achieving successful treatment outcomes.

**Table 4**

*Students' Adherence to Acne Management from Morisky Medication Adherence Scale (MMAS-8)*

<b>Statements</b>	<b>F (x) of YES</b>	<b>Percent</b>
1. Do you sometimes forget to do your routine care or take your prescribed medication for the management of acne?	79	25.00
2. People sometimes fail to carry out their acne management practices for reasons other than forgetting. Thinking over the past 2 weeks, were there any days when you did not perform your acne management practices?	97	30.70
3. Have you ever cut back or stopped performing management practices because you felt worse when you took them?	124	39.24
4. When you travel or leave home, do you sometimes forget to bring along your supplies, such as skin care products for acne management?	141	44.62
5. Did you perform all your management practices yesterday?	209	66.14
6. When you feel like your symptoms are under control, do you sometimes stop doing your management practices?	140	44.30
7. Performing management practices every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your management plan?	124	39.24
8. Do you have difficulty remembering to perform all your management practices for acne?	159	50.32

Table 4 shows students' adherence to acne management as measured by the Morisky Medication Adherence Scale. Furthermore, 97 students (30.70%) reported instances in the past two weeks when they did not engage in their acne management practices for reasons beyond mere forgetfulness, suggesting that additional factors may influence their non-adherence. A total of 124 students, corresponding to 39.24%, reported reducing or discontinuing their management practices because of adverse effects encountered concerning their management of

acne, emphasizing that negative acne treatment experiences may hinder their continuing adherence. Practical challenges are evident among 141 students (44.62%), who forgot to bring their skincare products when traveling or leaving home. Despite all of this, 209 students, representing 66.14%, completed all their management practices the previous day, indicating that adherence is attainable, at least in the short term.

Nevertheless, 140 students, representing 44.30%, reported ceasing their management practices once symptoms appeared manageable, highlighting concerns regarding the premature cessation of treatment. Likewise, 124 students, representing 39.24%, reported feeling inconvenienced and hassled by their daily management routine, while 159 students, or 50.32%, reported difficulty remembering to complete all their practices. This indicates the need for supportive strategies to improve adherence and aid in acne management.

Snyder et al. (2014) found that forgetfulness was the primary reason individuals failed to adhere to their acne treatment plans. This aligns with the current study's findings, which show that 25% of students reported forgetting to take their medication or to perform their regular skin care routine. Additionally, side effects were identified by Snyder et al. as another major factor influencing non-adherence, which corresponds with the 39.24% of students who reduced or discontinued treatment because they felt worse after using their medication. Similarly, Modarres Tuchayi et al. (2016) highlighted the importance of addressing practical barriers and simplifying treatment regimens to enhance patient adherence. This supports the results of the fourth statement, which found that 44.62% of students admitted to forgetting their skin care products when traveling, and the seventh statement, which found that 39.24% reported feeling stressed by their daily routines, both of which can negatively affect treatment consistency.

The findings reveal that adherence to acne management varies by age and biological sex, with some age groups and sexes demonstrating higher adherence rates. In nursing practice, this suggests the need for age and gender-specific educational interventions.

## Section 2. Perception of the Students on their Quality of Life in relation to Acne

**Table 5**

*Perception of the Students on their Quality of Life in Relation to Acne*

	Frequency	Percent
<b>Minimally Impaired</b>	128	40.5
<b>Mildly Impaired</b>	122	38.6
<b>Moderately Impaired</b>	56	17.7
<b>Severely Impaired</b>	10	3.2
<b>Total</b>	316	100.0

*Mean: 4.68 (Mildly Impaired) Std. Dev. :3.345*

Table 5 presents students' perceptions of their quality of life in relation to acne. Among the 316 respondents, a significant portion, 128 students or 40.5%, reported being minimally impaired by acne, indicating that while they may experience some issues, their overall quality of life remains largely unaffected. The overall mean score of 4.68, categorized as "mildly impaired," along with a standard deviation of 3.345, suggests that while many students experience some level of impairment, the majority do not view their acne as greatly affecting their quality of life.

Alasbi et al. (2021) found that students' quality of life is greatly affected by acne, with those who suffer from severe acne reporting the lowest quality-of-life scores. This implies that acne can affect people differently but can have a major impact on their overall health, especially for those with more severe cases. The present study disagrees with this result, as the majority of perceptions of QoL are minimally impaired, reflecting the low impact of acne.

**Table 6***Students' Perception of their Quality of Life in Relation to Cardiff Acne Disability Index (CADI)*

	Mean	Std. Deviation	Qualitative Description
1. As a result of having acne, during the last month, have you been aggressive, frustrated, or embarrassed?	1.07	.894	A little
2. Do you think that having acne during the last month interfered with your daily social life, social events, or intimate personal relationships?	.92	.807	A little
3. During the last month, have you avoided public changing facilities or wearing swimming costumes because of your acne?	.63	.864	A little
4. How would you describe your feelings about the appearance of your skin over the last month?	1.09	.872	A little
5. Please indicate how bad you think your acne is now:	.97	.766	A little

Table 6 reveals the impact of acne on students' emotional and social experiences over the past month, as indicated by mean scores and standard deviations for various statements.

The qualitative descriptions show that, while students recognize certain emotional and social repercussions of acne, these effects are largely regarded as minor. Nevertheless, this demonstrates the importance of supportive interventions that address both the physical and emotional aspects of living with acne. In the study by Morshed et al. (2023), while AV can negatively affect individuals' psychological well-being, self-esteem, and quality of life (QoL), the severity of these impacts can vary widely across individuals. The study shows that students' perceptions of their quality of life are significantly affected by acne, which impacts their emotional well-being and social interactions.

### Section 3. Correlation between the Adherence of the Students to Acne Management and their Perception of Quality of Life

**Table 7***Significant Relationship between the Adherence of the Students to Acne Management and their Perception of Quality of Life*

MMAS8	Pearson Correlation	-.329**
	Sig. (2-tailed)	.000
	N	316

*Legend: Pearson r.: Qualitative Description; Very High Correlation: 0.99+ – 0.80+, High Correlation 0.79+ – 0.60+, Moderate Correlation 0.59+ – 0.40+, Low Correlation 0.39+ – 0.20+, Very Low Correlation: 0.19+ – 0.01+*

Table 7 shows a Pearson correlation coefficient of -.329, indicating a low positive correlation between adherence to acne management and perceptions of quality of life. This indicates that respondents who adhere more closely to their acne management regimen tend to report a slightly better quality of life. Furthermore, adherence to acne management alone may not be a strong predictor of quality of life. While acne management adherence may contribute to a more positive perception of quality of life, other factors are likely to play a substantial role and should be further investigated.

The results are supported by the study by Jones-Caballero et al. (2008), which found that following acne therapy was associated with higher subjective severity ratings and better Skindex-29 scores (a skin disease assessment tool), thereby improving quality of life. This underscores the need to treat both the physical and psychological components of acne management, as treatments that promote adherence to therapy can greatly improve people's overall well-being. A significant positive correlation exists between adherence to acne management and perceived quality of life. This finding implies that improving adherence can directly enhance students' well-being.

#### **Section 4. Recommended Self-Esteem Upliftment Program for Students with Acne**

Based on the results and findings, the recommended program will include a one- to two-day forum on the significance of acne treatment with respect to both physical and emotional well-being. Dermatologists and healthcare professionals will provide substantiated information on acne, its causes, and treatment options, emphasizing the importance of thickness in skincare routines and medical treatments. To further engage scholars, the program will include a validation from a speaker who has experienced acne and the emotional and social challenges associated with it. This speaker will discuss how successful acne treatment appreciably improves their quality of life and encourages them to remain committed to their treatment. Through this admixture of educational accouterments, professional recommendations, and individual experience, the self-upliftment program aims to enhance adherence to acne treatment, increase awareness of the impact of skin health on daily life, and empower students to take control of their health and well-being.

### **CONCLUSION AND RECOMMENDATIONS**

#### **Conclusion**

The findings revealed that adherence levels were predominantly low across different age groups and sexes, with the highest adherence observed among the 16-year-olds. Both male and female students exhibited low overall commitment to acne routines, with females showing slightly better medium adherence. Despite these low adherence levels, most student reported only minimal to mild impairment in their quality of life caused by acne, suggesting a general resilience but also an underlying need for better support.

A significant but low negative correlation was found between adherence and perceived quality of life, indicating that those who manage their acne more consistently tend to experience slightly better well-being. This emphasizes the importance of early, age-appropriate education on acne care, simplifying the skin care routine, and interventions that address both physical treatments and emotional support.

This study has potential limitations. The sample selected for this study consisted of students who had either experienced acne in the past or were currently experiencing it. This includes those who occasionally get pimples. The results obtained may not reflect directly on those who are currently suffering from acne vulgaris; therefore, they lack direct representation for those suffering from long-term acne.

#### **Recommendations**

For future researchers who wish to carry out a similar study, it is suggested that they broaden the population by including students from various schools or areas to achieve a more diverse set of results. It would also be beneficial to examine other variables that may influence adherence and quality of life, such as socioeconomic status, the type of acne management or treatment being used, the mental health of those with acne, and where students are obtaining information about acne. Conducting a longitudinal study rather than a cross-sectional survey would also be useful in observing how adherence and perceptions evolve. Focusing on and strengthening the qualitative component of the study, rather than the quantitative component, through focus group interviews or more extensive interviews, may yield more individualized insights and greater understanding of the experiences of those living with acne. Future investigators are also challenged to design and evaluate targeted interventions, such as educational programs or support groups, to help students better control their acne and feel more confident. Engaging the parents and healthcare providers may provide additional insight regarding the predictors of treatment compliance. It is also recommended that the survey

instruments be translated to enhance their comprehensibility for Filipino students, thereby enabling better representation of the results. Using digital tools such as reminder apps can also help maintain consistency in acne care. These advances may assist subsequent research in achieving even better outcomes and designing better solutions for students with acne.

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