



Personal Hygiene Practices of Badjaos in Surigao City, Philippines

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ABSTRACT: This descriptive-quantitative study assessed the personal hygiene practices among the Sama Badjaos in Surigao City. The main instruments used to gather the data were researcher-made questionnaires. The study respondents were 68 Badjao respondents of P-1, Barangay Canlanipa, Surigao City, whose ages are 16 years old and above. This research utilized a descriptive quantitative research design, employing survey techniques and researcher-made questionnaires as the primary methodological approach. The design aimed to gather data through surveys in order to explore and analyze the phenomenon under investigation. The findings showed that there were significant differences in different categories of personal hygiene practices when the respondents were grouped according to their age, sex, and educational attainment. The study's findings highlighted a significant degree of variance in the respondents' hygiene practices with respect to the profile variables including bathing, oral and hand hygiene, clothing, and more. The study recommended sharing these findings with health organizations to disseminate information within the Badjao community via health education programs. Furthermore, presenting the findings to local officials and parents was suggested to improve hygiene practices. Lastly, based on the findings, future researchers were advised to address gaps by using visual aids and achieving a balanced respondent distribution.

KEYWORDS: Badjao, Descriptive Survey, Indigenous Peoples, Personal Hygiene, Surigao City, Philippines.

INTRODUCTION

Keeping the body clean is essential to maintaining health and helps the person feel good about themselves. Access to adequate sanitation infrastructure, including toilets, showers, and hand washing facilities, has long been identified as a precursor for personal hygiene and good health. People living in extreme poverty, particularly those who are homeless, may have limited access to sanitation facilities and, as a result, may have difficulty engaging in health-promoting self-care activities. The Badjaos are sea people native to the southwestern parts of the Philippines, along the coast of Jolo, Siasi, and Tapul Island and further south in Sitangkai and Sibutu. For centuries, they have fished, dived, and traded in the seas of Southeast Asia (Abrahamsson, 2011).

The peace-loving Badjao stayed away from the insurgency. For decades, Badjaos have suffered hard from large-scale migration in the Philippines (Blust, 2007). During a short period, many Badjao have transitioned from dwelling sea nomads to an urban minority with limited knowledge about city life. According to Abrahamsson (2011), a significant majority have never been to school, can seldom read or write, have no legal papers, and have no experience of administration and governmental rule. Their Philippine neighbors view them as uncivilized, lazy, and dirty. For example, Badjaos face discrimination when entering shopping malls and restaurants; their children are being teased in school, and they can hardly find a job (Blust, 2007).

High levels of social, economic, and environmental disadvantage underlie the health problems in remote Indigenous communities. The survey by McDonald et al. (2009) highlighted that poor housing conditions lead to unsanitary environments and increased infections. The WHO data on the disease burden from Howard & Bartram (2013) reported that approximately 1.7 million deaths worldwide are attributable to unsafe water, sanitation, and hygiene. Some researchers, like Ray et al., 2010, have revealed that a significant proportion of deaths can be prevented through safe drinking water, adequate sanitation, hygiene, immunization, and proper infant feeding.

The Badjao community of Barangay Canlanipa and their house are either near or above the waters. Most living there are fishermen who depend heavily on the sea. Others have found jobs within their community or city, while others also settle as beggars, continually roaming the city streets. It was also observed that many Badjaos do most of their activities near the waters where they reside. Badjao children have been observed to play in the waters near their homes. However, most residents need a proper sewage and drainage system attached to their houses, ultimately leading to waste materials being thrown into the water. According to the



verbal report from a community nurse stationed in Barangay Canlanipa, they have a program promoting a zero-defecation community, and although several efforts have been made to support this program, such as providing a proper public toilet for the Badjaos. However, the Badjaos still chose to defecate directly into the sea. The reason for this behavior is believed to be mainly because they have grown accustomed to such behavior.

In addition, per the researcher's initial interview with the "Nanay" or Chieftain of the Badjaos in Barangay Canlanipa, most Badjaos do not usually bathe; one reason for that is that their clean source of water is a significant distance from where they are. Badjao children attending school are encouraged by their chief to take a bath and clean themselves before going to school. Regarding hand hygiene, they only occasionally wash their hands and not regularly. According to the chief, this may be because the source of clean water is distant from their homes. In addition, the most common health issues of the Badjaos in terms of hygiene are diarrhea, fever, and cough, all of which can be traced back to various causes, including poor personal hygiene. The goal of this study was to determine the level of personal hygiene practices exercised by the Badjaos of Barangay Canlanipa, Surigao City, Surigao del Norte. It will possibly assist in the creation of needed routine hygiene practices. The study also aims to assist the Badjao community in ending prejudice of being unsanitary and enabling them to walk confidently among other people.

Framework

This study was anchored on the concept of personal hygiene practices that were examined in the study of Villanueva & Edano (2018) in their research titled Hygiene and Sanitation Practices of the Badjaos in Iba, Zambales. The general context of the personal hygiene practices that were examined in their study is in terms of bathing, oral hygiene, hand washing, nail hygiene, hair hygiene, and ear hygiene. The said study determined the significant relationships and individual variances in the profile of the respondents of Barangay Canlanipa, Surigao City, and the personal hygiene practices derived from the study of Villanueva & Edano (2018).

Personal hygiene has been an important global public health issue for a long time. Hygiene refers to practices associated with ensuring good health and cleanliness. Personal hygiene is the practice of maintaining the cleanliness of one's own body. Good hygienic care, as well as practices in terms of personal hygiene, contributes to a large extent to factors relating to healthful living and prevention of hazards from diseases. These health risk factors are directly related to some important daily activities implicated with worthy operational actions and obligatory responsibilities, such as washing hands before meals and after defecation with soap, brushing teeth at least twice a day, especially after breakfast and after meals, taking a bath with soap regularly, keeping nails short and taking regular exercise (Ali et al., 2013).

The profile of the respondents of the current study was patterned from the article that this study is anchored on, and this includes the respondents' age, sex, and highest educational attainment. The general context of the personal hygiene practices examined in the anchored study goes around bathing, oral hygiene, hand washing, nail hygiene, hair hygiene, and ear hygiene. These are the relevant factors in determining the variance in personal hygiene. The researchers decided to include clothing hygiene and environmental control (cleanliness practices) as the dependent variables. Both variables were used to determine the desired outcome of this study, which was to determine the level of personal hygienic practice that was exercised by the Badjaos of Barangay Canlanipa, Surigao City, Surigao del Norte and was the basis for the proposed recommendations.

Research Objectives

This study aimed to investigate the personal hygiene practices of the Badjao people in Barangay, Canlanipa, Surigao City. Specifically, this study determined:

1. The demographic profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 sex; and
 - 1.4 highest educational attainment?
2. The level of variance of hygiene practices of the Badjao respondents of Barangay Canlanipa Surigao city in terms of:
 - 2.1 Bathing;
 - 2.2 Oral hygiene;
 - 2.3 Hand washing;
 - 2.4 Nail hygiene;
 - 2.5 Hair hygiene;



- 2.6 Ear hygiene;
 - 2.7 Clothing;
 - 2.8 Environmental Control (Cleanliness Practices);
 - 2.9 Hygiene During Menstruation and;
 - 2.10 Facial Hygiene.
3. The significant degree of variance in the personal hygiene practices of the Badjao people when they are grouped according to their profile variables.
4. The recommendations based on the findings of the study.

METHODS

This study applied a descriptive quantitative research design employing a survey approach to collect quantifiable information for statistical analysis of the Badjao people residing in Barangay Canlanipa, Surigao City, during the years 2022 to 2023. The researchers utilized a convenience sampling technique, selecting 68 respondents with varying age groups, gender distribution, and educational backgrounds. The study was conducted in Purok-1, Barangay Canlanipa, Surigao City, with data gathering taking place in houses and community sheds. Researcher-made questionnaires, validated by a panel of experts from St. Paul University Surigao, are the primary instruments. Data analysis involved tools such as Frequency Count and Percentage Distribution for profiling, Mean and Standard Deviation for assessing personal hygiene variance, and Analysis of Variance (ANOVA) to determine significant differences based on respondent profiles. The approval process included a letter to the College of St. Paul University Surigao, and considering potential illiteracy, quantitative interviews were conducted for some respondents. Ethics in the conduct of this research were strongly considered for the academic integrity of this study. Ethical research practices in educational institutions are strongly followed since it is always the goal of educational research to contribute to the general welfare of the academic community and to generally create measurable information or data that will eventually add to the increase of human knowledge (Ederio et al., 2023) such as the essence depicted by this study.

RESULTS AND DISCUSSION

I – Demographic Profile Distribution of the Respondents

Table 1.1 Age Distribution of the Respondents

Age	f(n=68)	%
Below 16 years old	11	16.2
16-25 years old	34	50.0
26-35 years old	11	16.2
36-45 years old	6	8.8
46-55 years old	4	5.9
Above 55 years old	2	2.9

Table 1 presents the distribution of respondents across different age groups. According to the data in the table above, most respondents (50.0%, or 34) fall into the age group of 16–25 years old. Additionally, 16.2% (11) of the respondents fall below 16 and 26–35 years old, indicating a significant representation of adolescents and young adults in the sample. On the other hand, the older age groups (36–45, 46–55, and above 55 years old) accounted for smaller percentages, ranging from 2.9% (above 55 years old) to 8.8% (36–45).

Table 1.2 Sex Distribution of the Respondents

Sex	f(n=68)	%
Male	23	33.8
Female	45	66.2



Regarding Sex, most respondents (66.2% or 45) identified as female, while 33.8% or 23 identified as male. This data presents a relatively balanced representation of genders in the study sample, indicating that the respondents tried to achieve gender diversity. The study of Balasabas and Quiboyen (2021) showed that male and female Badjaos perform those indicated practices for sanitary measures at almost the same frequency.

Table 1.3 Distribution of the Respondents in terms of Highest Educational Attainment

Highest Educational Attainment	f(n=68)	%
College Graduate	3	4.4
College Level	1	1.5
High School Graduate	11	16.2
High School Level	6	8.8
Elementary Graduate	7	10.3
Elementary Level	5	7.4
No Formal Education	38	51.5

Regarding the highest educational attainment of the respondents, 51.5%, or 38, were reported as having no formal education. Furthermore, 16.2%, or 11 respondents, had a high school graduate level of education, making it the second most common category. Other educational levels, such as college graduate (4.4% or 3), college-level (1.5% or 1), high school level (8.8% or 6), elementary graduate (10.3% or 7), and elementary level (7.4% or 5), represented smaller percentages. This implies that the study appealed to respondents from diverse educational backgrounds, including those without traditional schooling.

Odonkor et al. (2019) found that the respondents' lack of education was the main barrier to personal hygiene. However, the data shows no significant degree of variance in the level of personal hygiene practiced when correlated to the level of education attained by the respondents. According to the study by Davis (2021), many respondents shared that their native culture influences their hand hygiene practices. This means that in this study, it has been concluded that there is no significant difference in the level of education attained when correlated to the level of personal hygiene practiced.

II – Hygiene Practices of the Badjaos

Tables 2–12 present an overview of the personal hygiene practices among the Badjaos in Barangay Canlanipa, Surigao City. The table includes information on various aspects of personal hygiene, such as bathing, oral hygiene, hand washing, nail hygiene, hair hygiene, ear hygiene, clothing hygiene, environmental control, hygiene during menstruation, and face hygiene.

Table 2. Bathing Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I practice bathing every day.	3.62	.574	VC	VH
2. I use a washcloth when bathing.	3.60	.550	VC	VH
3. I use soap when bathing.	3.84	.444	VC	VH
4. I thoroughly wash my private parts when bathing.	3.85	.396	VC	VH
5. I take a bath every morning.	3.54	.656	VC	VH
6. I take a half bath every night.	3.24	.848	C	VH
7. I do scrubbing every day.	3.74	.507	VC	VH
8. I soak my hair with water every time I shower	3.75	.766	VC	VH
Average	3.65	.388	VC	VH

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL



Table 2 shows that the Badjaos demonstrate a very high level of practice and are very consistent with Bathing as a hygiene practice in the locality (M=3.65; SD=0.396). Specifically, Badjao people thoroughly wash their private parts when bathing (M=3.85; SD=0.388) very consistently, but are only quite consistent with taking a half bath every night (M=3.24; SD=0.848). According to the Centers for Disease Prevention and Control or CDC (n.d.), many illnesses and ailments can be avoided or treated by practicing good personal hygiene and frequently washing areas of the body and hair with soap and water. Many respondents claim that because they are fishermen, going into the water and catching fish would automatically be considered getting a bath. Ocean waters are rich in minerals, vitamins, amino acids, trace elements, and microorganisms that have antibacterial properties and can potentially be used as natural antibiotics. When you swim or inhale sea mist, these components are absorbed via your skin (Gajadharsingh, 2019).

Table 3. Oral Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I brush my teeth after meals.	3.53	0.701	VC	VH
2. I use toothpaste when brushing my teeth.	3.79	0.442	VC	VH
3. I use salt as an alternative to toothpaste when brushing my teeth.	2.65	1.169	C	H
4. I brush my tongue as well when I brush my teeth.	3.41	0.868	VC	VH
5. I use mouthwash when cleaning my mouth.	2.64	1.252	C	H
6. I gargle water mixed with salt every day.	2.75	1.238	C	H
7. I brush my teeth every morning.	3.69	0.656	VC	VH
8. I brush my teeth before I go to bed.	3.21	0.986	C	H
9. I brush my teeth before I go to school/ out.	3.66	0.725	VC	VH
10. I go to the dentist regularly.	2.07	1.235	NC	L
Average	3.23	0.518	C	H

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

In Table 3, the Badjaos demonstrate a high level of practice and are consistent with Oral Hygiene as a hygiene practice in the locality (M=3.23; SD=0.518). These respondents moreover highly practiced brushing their teeth every morning and were very consistent with it (M=3.69; SD=0.656). However, they are not used to going to a dentist regularly for an oral check-up (M=2.07; SD=1.235). In the study of Tynan et al. (2020), several factors were identified about the indigenous people’s desire to acquire medical attention for oral health. These factors include symptom severity (e.g., toothache pain), limited resources (finance, transport), social impact (appearance, self-esteem), and health beliefs (oral health awareness). The respondents may have various reasons for reluctance or disinclination to seek professional dental assistance. Instead, they prioritize maintaining good oral hygiene practices to address any dental issues they encounter.

Table 4. Hand Washing Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I wash my hands before meals.	3.85	.396	VC	VH
2. I wash my hands after meal.	3.85	.396	VC	VH
3. I wash my hands before cooking.	3.85	.359	VC	VH
4. I wash my hands after cooking	3.72	.619	VC	VH
5. I wash my hands after using the toilet.	3.78	.546	VC	VH
6. I wash my hands after handling garbage.	3.79	.534	VC	VH
7. I wash my hands after handling an animal.	3.49	.805	VC	VH



8. I wash my hands for as long as 20 seconds.	3.03	1.007	C	H
9. I use alcohol to clean my hands.	3.30	.888	VC	VH
Average	3.63	.406	VC	VH

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 4 presents on the other hand that the Badjaos demonstrate a very high level of practice and are very consistent with Handwashing as a hygiene practice in the locality (M=3.63; SD=0.406). Specifically, the Badjaos highly practiced washing their hands before meals and cooking and after meals (M=3.85) although they are not always used to washing their hands for as long as 20 seconds (M=3.03; SD=1.007) but some are quite consistent with it. According to the Centers for Disease Control and Prevention, hand washing can lower the occurrence of diarrhea by 23–40% in the general population and by 58% in those with impaired immune systems. Furthermore, hand washing can reduce respiratory infections like colds by 16–21%. It has also been shown to lower gastrointestinal illness-related absenteeism among students by 29–57%. These findings emphasize the need for frequent hand washing as a simple yet effective intervention in preserving good health and reducing illness transmission.

Table 5. Nail Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mea n	SD	VI	QD
1. I practice cutting my nails every two weeks.	3.62	.670	VC	VH
2. I use soap and water to scrub and clean the underside of my nails.	3.59	.717	VC	VH
3. I clean my nails every time I see that it has dirt inside.	3.57	.630	VC	VH
4. I pick the underside of my nails using a nail pick.	3.46	.762	VC	VH
5. I trim the excess skin on my fingers after cutting my nails.	3.41	.796	VC	VH
6. I don't bite my nails every time.	2.89	1.326	C	H
Average	3.43	.425	VC	VH

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 5 also shows that the Badjaos demonstrate a very high level of practice and are very consistent with Nail cleaning as a hygiene practice in the locality (M=3.43; SD=0.425). Specifically, they practice at a very high level the cutting of nails every two weeks, very consistently (M=3.62, SD=0.670). However, the Badjaos were also tempted to bite their nails every time and considered it as a cleaning practice among themselves (M=2.89; SD=1.326). According to Hardy et al. (2017), nails longer than 2mm were a risk factor for increased bacterial count, and according to the Centers for Disease Control and Prevention or CDC (n.d.), Fingernails should be kept short, and the undersides should be cleaned frequently with soap and water.

Table 6. Hair Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I cut my hair in < 2 months.	3.14	1.006	C	H
2. I use shampoo when washing my hair.	3.90	.354	VC	VH
3. I use soapy water to wash my hair	3.56	.835	VC	VH
4. I dry my hair with a towel after I wash my hair	3.57	.675	VC	VH
Average	3.54	.467	VC	VH



Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 6 presents that the Badjaos demonstrate a very high level of practice and are very consistent with Hair cleaning as a hygiene practice in the locality (M=3.54; SD=0.467). Specifically, Badjaos use shampoo when washing their hair (M=3.90; SD=0.354) very consistently, while quite consistent about cutting their hair not going beyond two months (M=3.14; SD=1.006). According to the Centers for Disease Control and Prevention or CDC (n.d.), maintaining a healthy scalp and hair through good hygiene and proper hair care can help prevent and control many diseases and conditions. Using soap and cleaning with running water to remove dirt, oil, and unwanted residue from the head is the best hair-washing practice. It can be gleaned from the table that the Badjaos are not far from the non-IPs' hygiene practices implying that these indigenous people (IP) are also knowledgeable about proper hygiene and hence there is no discrimination among IPs and Non-IPs on hygiene knowledge and practices.

Table 7. Ear Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I use Cotton buds as a hygiene product.	3.63	.689	VC	VH
2. I wash the back of my ear with a washcloth.	3.65	.617	VC	VH
3. I wash the visible parts of my ear using soap and water.	3.76	.461	VC	VH
4. I clean my ears every day after taking a bath.	3.74	.536	VC	VH
Average	3.69	.406	VC	VH

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 7 shows that the Badjaos demonstrate a very high level of practice and are very consistent with Ear cleaning as a hygiene practice in the locality (M=3.69; SD=0.406). Specifically, since the same respondents expressed their greatly high level and consistent Bathing practices, they washed the visible parts of their ears using soap and water (M=3.76; SD=0.461) very consistently. This point is not far from the least rated indicator by the Badjaos saying that they also very highly practiced and are very consistent with using cotton buds as a hygiene tool (M=3.6; SD=0.689). It is not uncommon for people to get rid of wax in their ears, and it is a global assumption that wax is considered dirt despite its physiological usefulness of protecting the ear from dust and foreign bodies. Several methods/materials were found to have been used for self-ear cleaning in these studies, but what came most commonly were cotton buds (Lukolo, Kimera, and Gentz, 2021).

Table 8. Clothes Cleaning as Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I change my clothes when they're sweaty, dirty, or smelly.	3.68	.531	VC	VH
2. I wash my clothes after wearing it 3-5.	3.40	.799	VC	VH
3. I wash my clothes using soap and water.	3.85	.357	VC	VH
4. I change my clothes before I go to bed.	3.29	.882	VC	VH
5. I change my underwear every day.	3.66	.563	VC	VH
Average	3.58	.439	VC	VH

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL



Table 8 shows that the Badjaos demonstrate a very high level of practice and are very consistent with Clothes cleaning as a hygiene practice in the locality (M=3.58; SD=0.439). Specifically, the Badjaos wash their clothes using soap and water (M=3.85; SD=0.357), very consistently. This is not far from their least-rated clothing-related hygiene practice saying that they change their clothes before going to bed (M=3.29; SD=0.882) very consistently. According to Vivas AP et al. (2010), those with adequate knowledge of proper hygiene were more likely to have been assessed as having clean clothes.

Table 9. Environmental Control/Cleanliness Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I sweep my environment every day.	3.43	.739	VC	VH
2. I throw my trash in a trash bin.	3.19	1.055	C	H
3. I recycle my waste products.	3.01	1.121	C	H
4. I segregate my waste items based on their type.	2.82	1.257	C	H
5. I don't throw my waste wherever.	2.99	1.148	C	H
6. I minimize my use of single-use items to minimize my waste output.	3.03	1.133	C	H
7. I use reusable items to minimize my waste output.	3.07	1.124	C	H
8. I refrain from burning my waste.	2.94	1.140	C	H
Average	3.01	.954	C	H

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 9 shows that the Badjaos demonstrate quite a high level of practice and are quite consistent with Environmental Control and Cleanliness as a hygiene practice in the locality (M=3.01; SD=0.954). The Badjaos however were noted to have been very highly and consistently practicing sweeping their surroundings or environment every day (M=3.43; SD=0.739). According to Karn, Bhandari, and Jha (2012), proper sanitation is a necessary prerequisite for improvement in general health standards, the productivity of the labor force, and good quality of life. The Badjaos admitted on the other hand that their waste segregation practice is not notably high or very consistent (M=2.82; SD=1.257).

Table 10. Hygiene during Menstruation of Badjaos in Barangay Canlanipa, Surigao City

Indicators	Mean	SD	VI	QD
1. I change my napkins every 3 hours.	3.09	1.137	C	H
2. I thoroughly wash my private parts whenever I change napkins.	3.62	.806	VC	VH
3. I use antibacterial soap/ solution in washing my private parts.	3.89	.318	VC	VH
4. I use a napkin when I am on my period.	3.36	1.090	VC	VH
5. I take baths every day whenever I have my period.	2.51	1.218	C	H
6. I wash my hands when I change my napkins.	3.40	1.053	VC	VH
Average	3.31	0.967	VC	VH

Scale	Interval	Verbal Interpretation	Code	Qualitative Description	Code
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 10 shows that the Badjaos demonstrate a very high level of practice and are very consistent with menstruation-related cleaning as a hygiene practice in the locality (M=3.31; SD=0.967). Specifically, the female Badjaos use antibacterial soap/ solution in washing private parts (M=3.89; SD=0.318), very consistently. Meanwhile, the same female Badjao respondents noted that they quite consistently take baths every day whenever they have their period (M=2.51; SD=1.218). Hygiene-related practices of women



during menstruation are of considerable importance, as they have a health impact in terms of increased vulnerability to reproductive tract infections or RTI. The different aspects of personal hygiene were poor, such as not changing pads regularly or at night and not bathing during menstruation, with lack of privacy being an important problem (Dasgupta A. and Sarkar M., 2008).

Table 11. Face Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Indicators		Mean	SD	VI	QD
1. I wash my Face more than three times a day.		3.63	.811	VC	VH
2. I wash my Face every day.		3.57	.630	VC	VH
3. I use soap when I wash my Face.		3.75	.438	VC	VH
4. I use different soaps to wash my Face.		2.93	1.137	C	H
5. I wash my Face when I wake up in the morning.		3.49	1.000	VC	VH
6. I wash my Face before I go to bed.		3.25	.927	VC	VH
7. I take care of my skin using different skin care products.		2.87	1.233	C	H
Average		3.31	.626	VC	VH
<i>Scale</i>	<i>Interval</i>	<i>Verbal Interpretation</i>	<i>Code</i>	<i>Qualitative Description</i>	<i>Code</i>
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL

Table 11 shows that the Badjaos demonstrate a very high level of practice and are very consistent with facial cleaning as a hygiene practice in the locality (M=3.31; SD=0.626). Notably, the same Badjao respondents said that they use soap when washing the face (M=3.75; SD=0.438), very consistently. On the other hand, their consistency in taking care of the skin using different skin care products is not notable but still practiced (M=2.87; SD=1.233). According to Chen X. et al. (2021), having a clean face is protective against trachoma. In the past, long distances to water were associated with unclean faces and increased trachoma. We need improved clarity on the environmental factors associated with facial cleanliness and trachoma prevalence, especially when the disease burden is low. According to Hwang B. et al. (2021), the daily use of skin care products could affect the microbial structure of facial skin as well as the biophysical properties of the facial skin.

Table 12. Overall Personal Hygiene Practices of Badjaos in Barangay Canlanipa, Surigao City

Variables		Mean	SD	VI	
Bathing practice		3.65	0.388	VC	
Oral hygiene practice		3.23	0.518	C	
Hand washing practice		3.63	0.406	VC	
Nail hygiene practice		3.43	0.425	VC	
Hair hygiene practice		3.54	0.467	VC	
Ear hygiene practice		3.69	0.406	VC	
Clothing hygiene practice		3.58	0.439	VC	
Environmental control (cleanliness practices) practice		3.01	0.954	C	
Hygiene during menstruation practice		3.31	0.967	VC	
Facial hygiene practice		3.31	0.626	VC	
Grand Mean		3.326	0.5032	VC	
<i>Scale</i>	<i>Interval</i>	<i>Verbal Interpretation</i>	<i>Code</i>	<i>Qualitative Description</i>	<i>Code</i>
4	3.25-4.00	Very Consistent	VC	Very High	VH
3	2.50-3.24	Consistent	C	High	H
2	1.75-2.49	Not Consistent	NC	Low	L
1	1.00-1.74	Never Done	ND	Very Low	VL



Table 12 presents the overall personal hygiene practices of Badjaos in Barangay Canlanipa, Surigao City. The data shows that the Badjaos generally are very consistent in terms of maintaining good personal hygiene. It is only in terms of environmental cleaning and oral hygiene that the Badjaos' consistency in practice is not very high. The respondents greatly and highly practiced cleaning their ears, bathing on a regular basis, washing their hands consistently, and cleaning their nails and hair.

III – Significant Degree of Difference in the Personal Hygiene Practices of Badjaos with Respect to their Profile Variables

Table 13. Significant Degree of Difference in the Bathing Practices of Badjaos with Respect to Profile

Profile	Hygiene Practice	p-value	Decision	Difference	
Age	Bathing	0.707	Do not reject Ho	Not Significant	
Sex	Bathing	0.901	Do not reject Ho	Not Significant	
Highest Attainment	Educational	Bathing	0.504	Do not reject Ho	Not Significant
Age	Oral	0.736	Do not reject Ho	Not Significant	
Sex	Oral	0.002	Reject Ho	Significant	
Highest Attainment	Educational	Oral	0.510	Do not reject Ho	Not Significant
Age	Hand Washing	0.063	Do not reject Ho	Not Significant	
Sex	Hand Washing	0.075	Do not reject Ho	Not Significant	
Highest Attainment	Educational	Hand Washing	0.272	Do not reject Ho	Not Significant
Age	Nail Hygiene	0.062	Do not reject Ho	Not Significant	
Sex	Nail Hygiene	0.005	Reject Ho	Significant	
Highest Attainment	Educational	Nail Hygiene	0.374	Do not reject Ho	Not Significant
Age	Hair Hygiene	0.267	Do not reject Ho	Not Significant	
Sex	Hair Hygiene	0.156	Do not reject Ho	Not Significant	
Highest Attainment	Educational	Hair Hygiene	0.810	Do not reject Ho	Not Significant
Age	Ear Hygiene	0.825	Do not reject Ho	Not Significant	
Sex	Ear Hygiene	0.104	Do not reject Ho	Not Significant	
Highest Attainment	Educational	Ear Hygiene	0.026	Reject Ho	Significant
Age	Clothing	0.274	Do not reject Ho	Not Significant	
Sex	Clothing	0.398	Do not reject Ho	Not Significant	
Highest Attainment	Educational	Clothing	0.320	Do not reject Ho	Not Significant
Age	Environmental	0.860	Do not reject Ho	Not Significant	
Sex	Environmental	0.028	Do not reject Ho	Not Significant	
Highest Attainment	Educational	Environmental	0.424	Do not reject Ho	Not Significant
Age	Menstruation	0.303	Do not reject Ho	Not Significant	
Sex (Females only)	Menstruation	0.000	(Females only)	(Females only)	
Highest Attainment	Educational	Menstruation	0.596	Do not reject Ho	Not Significant
Age	Face Hygiene	0.671	Do not reject Ho	Not Significant	



Sex	Face Hygiene	0.302	Do not reject Ho	Not Significant
Highest Educational Attainment	Face Hygiene	0.333	Do not reject Ho	Not Significant

Decision: Reject Ho: $p < 0.05$

Table 13 shows that there was no significant difference in the Bathing practices of the Badjao people with respect to their age, sex, and highest educational attainment. The findings suggest that bathing practices are not defined and influenced by profile backgrounds. Furthermore, age and highest educational attainment also do not influence or define oral hygiene practices among the Badjao respondents. Likewise, handwashing, hair hygiene, clothes cleaning, environmental cleaning, and face hygiene practices do not vary regardless of the respondents' profile variables. Moreover, Nail and Menstruation hygiene practices do not vary with respect to age and educational background while ear hygiene practices are also not influenced by age and sex variables.

The Badjao respondents maintain consistent personal hygiene routines regardless of these demographic variables. These individuals have incorporated hygiene into their daily routines, recognizing its vital role in preventing cross-contamination, averting complications, and ensuring cleanliness. These results emphasize the significance of ingraining specific hygiene practices as a necessary measure for maintaining personal well-being. According to Sallami (2016), when grouped according to their Sex, the evaluation of their knowledge, attitude, and practice in the field of medical sciences demonstrated that nearly all respondents possessed awareness regarding hand hygiene. Moreover, according to Hasnawati A. et al. (2021), most respondents demonstrated good personal hygiene and complied with the nail, finger, and hair cleanliness requirements.

However, it is shown that there is a significant difference in the oral hygiene practices of the Badjaos when they are categorized by Sex. Gender or Sex influences the level of oral hygiene practices of the respondents. This presentation agrees with the findings in the study of Lipsky et al. (2021), which identified several differences between men and women related to oral health. Gender disparities in oral health and oral health behaviors become apparent as men tend to report inferior oral health conditions, exhibit subpar oral hygiene practices, and have a reduced frequency of dental appointments (Su et al., 2022).

Likewise, it is shown that there is a significant difference in the nail hygiene practices of the Badjaos when they are categorized by Sex. Their roles or jobs probably influence the difference in nail hygiene practice among the female and male respondents. Many respondents within the male group are working as laborers in construction sites, in ships, and as garbage collectors. Most Badjao men and even young individuals have become laborers in the Bongao market, working for businesses owned by Tausug, Chinese, Christians, and Sama. At the same time, Badjao women go door-to-door seeking cleaning and laundry opportunities in different households (Navarro, 2015).

Ear hygiene practices were also found to have significant variation with respect to the respondents' educational attainment. According to Alateeq O.M et al. (2018), knowledge regarding the harmful impact of using foreign objects or sharp tools for ear cleaning was found unsatisfactory among the rural population. Similarly, it was found that there is a significant difference in the respondents' environmental cleaning practices considering Badjao's Sex implying that there is an association between sex and environmental control/cleanliness practices. According to Kjeldstad K. & Lappegård T. (2014), analysis of predicted class membership probabilities reveals that half of our sample belongs to a family type with consistent gender values and household practices, of whom the majority has consistent egalitarian values and egalitarian practices. Females, especially older mothers in the rural community are more used to cleaning the household surroundings especially every morning than the males. Lastly, in the aspect of menstruation hygiene, it is understood that only the female respondents are prominent with menstruation-related hygiene practices.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the study concluded that the Badjaos' practices during Menstruation showed some inconsistencies and variations among them. Considering that the Badjao women have in their belief that it is not good to bathe during their time of menses, it is concluded that this practice belief contributes to the result in this aspect. The study also suggests that the Badjao community in Barangay Canlanipa, Surigao City, consistently follows positive hygiene practices, with high scores in various personal hygiene areas. However, there are also notable differences in the practices or rather, different interpretations and contextualizations of the hygiene practices especially in terms of bathing. While the community shows high consistency in bathing



practices, many consider swimming in nearby waters as a form of bathing. This implies that this difference in interpretation led to the particularly high result of the mean of the hygiene practices in terms of bathing. Furthermore, the study also showed that Badjao people maintain similar personal hygiene practices regardless of age, gender, or educational attainment. This implies that these practices are deeply ingrained in the culture of the community, suggesting a consistent cultural norm related to personal Hygiene among the Badjao people.

Based on the findings and conclusions of this study, the study recommends that the findings of this study will be shared with multiple health organizations operating in the area, aiming to disseminate the valuable information gathered. In addition, it is essential to establish and maintain regular health education and promotion programs for the Badjaos in the host community. These programs will play a crucial role in encouraging and facilitating the adoption of good personal hygiene practices among the community members. The findings of this study may also be presented to the officials of Barangay Canlanipa, Surigao City, in collaboration with the local health organizations and representatives of the Badjao community of Barangay Canlanipa. They could analyze the findings to identify areas for enhancement and explore multiple approaches to support and enhance specific aspects of personal hygiene practices within the Badjao community. This process would involve careful consideration of the research results and implementing suitable interventions. Also, to address the deficiencies in personal Hygiene discovered by the researcher, special attention will be devoted to enhancing oral Hygiene and reinforcing environmental Hygiene. Further efforts towards health education initiatives should be implemented to underscore the importance of proper practices. Furthermore, the programs will emphasize the potential consequences that can arise from neglecting the significance of personal Hygiene, aiming to instill a greater sense of responsibility and awareness among individuals.

Moreover, the findings of this study may also be presented to the parents so that they can gain awareness of the benefits of adopting good personal hygiene behaviors. By understanding the advantages of practicing proper Hygiene, parents can make informed decisions and encourage their children to develop healthy habits. Furthermore, the presentation aims to highlight the potential risks that can be prevented through adherence to good hygiene practices, emphasizing the importance of maintaining cleanliness and reducing the chances of illness or infection. Lastly, future researchers will conduct a follow-up study to determine personal Hygiene status in the Badjao community in Barangay Canlanipa, Surigao City. If future researchers would conduct a follow-up study, the following gaps identified during the conduct of this study should be addressed such as by incorporating visual aids in the data gathering procedure. This action is recommended to help with the problem encountered by the researchers regarding the language barrier. The use of visual aids will help in describing the context of the questions displayed in the questionnaires. Finally, future researchers should try to gather the necessary data with an equal distribution of respondents to the independent variables: age, sex, and educational background.

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