



Piper Betel and Areca Nut: Interfacing Cultural, Communication and Ethno-therapeutic Knowledge as Reflected in the Kalinga Epic, the Ullalim

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Abstract— This study is focused on piper betel/arecanut chewing in Kalinga. It aimed to explore the Kalinga epic, the Ullalim to find out the cultural significance of piper betel/areca nut chewing. The literary analysis of the Kalinga epic revealed that there are cultural significances and ethno-therapeutic effects of chewing piper betel/ areca nut reflected in the Ullalim. It is then recommended that young chewers should become more aware of the social and cultural significances of chewing piper betel/areca nut.

Keywords— Piper betel, Communication, Cultural, Ethno-therapeutic, Kalinga epic



I. INTRODUCTION

Background of the Study

Approximately 600 million people worldwide chew areca nut from the *Areca catechu* palm tree. The proper terms are “areca fruit” in reference to the fibrous drupe containing the seed, “areca nut” in reference to the seed only, and “betel quid” in reference to the areca fruit or areca nut combined with the *Piper betle* leaf and other additives. The nut is also chewed for cultural reasons among populations in regions where the practice is endemic (Paulino, Y. et. Al.)

Betel-nut chewing is an ancient practice among Asians, and betel nuts are consumed in a large variety of ways. Betel nut is the fourth most widely used addictive substance in the world. People chew it as stimulant and mouth freshener. Evidence suggests that betel nut products are associated with increased risk for malignancies (mainly of the oral cavity, esophagus, and stomach), metabolic syndrome, kidney disease, and obesity. Its chewing is also independently associated with cardiovascular disease and all-cause mortality. It has been found to be a common cause of airway obstruction in children, and may aggravate asthma (Niloufer Sultan Ali, et. At.).

Chewing the mixture of betel nut and betel leaf is a tradition, custom or ritual which dates back thousands of

years in much of the geographical areas from the Cordillera. It constitutes an important and popular cultural activity in many places in the Philippines. It is not known how or when the betel nut and the betel leaf were first combined into one psychoactive drug. The mixture of both has a ceremonial and highly symbolic value.

Tourists visiting the Cordilleras are often curious how the natives “paint the town red”. No, it’s not the same as how Mr. Google would define it as “to go on a spree” or “to get drunk”. In the Cordilleras, they literally paint the town red. Going further into the rural areas, unfamiliar people would be shocked with sights of reddish stains on the floor. Some might even think that a blood bath happened recently in the area. Relax; these are spits of betel nut or what the locals would refer to as “nganga” or “moma” (Cosalan, 2017)

Betel nut is considered to be the fourth most addictive substance in the world after nicotine, alcohol, and caffeine. Though chewing betel nut is a part of the culture and tradition of some tribes, there are strong and growing evidences of serious health problems from frequent and regular use (<http://wiki.com.ph>).

On the other hand, “nganga” was also classified by the World Health Organization (WHO) as a carcinogen. Studies show that chewing betel nut may cause mouth,

esophagus laryngeal and lung cancers. It can also cause oral submucous fibrosis, diabetes and hypertension, precancerous lesions, withdrawal symptoms in newborn, and tooth destruction. It acts as an Amphetamine which is a stimulant and just like it, betel nut is addictive. Its effects are more harmful than beneficial (Cosalan, 2017).

The important question that needs to be pursued regarding betel nut chewing in Kalinga is that: is this just a new interesting phenomenon to explore because of the observable and significant increased number of young chewers who taught of adopting this cultural activity/ style of betel nut chewing?

Conceptual Framework

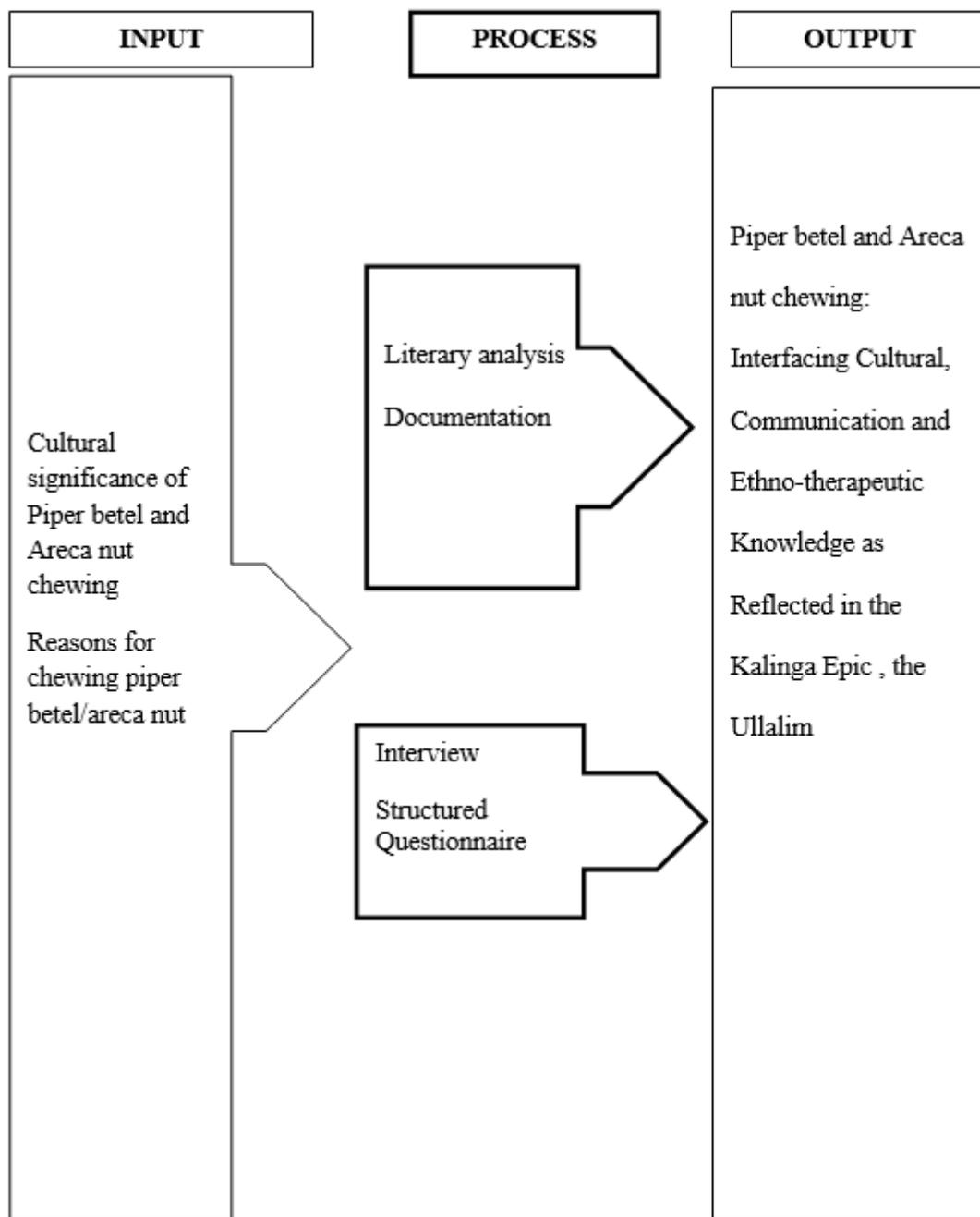


Fig.1. Conceptual Paradigm of the study

Elderly people in the Philippines invariably remember a time in their youth when offering atray of *buyo or hitso* (native terms for the betel chew) was the essence of urbanity, an act of courtesy and politeness in

every house especially in the homes of the wealthy. A homeowner would never fail to offer betel to anyone who entered his house for to do so would be a serious breach of hospitality. On formal occasions, the ingredients of the

quid would be served in precious metal trays (*bandejados* or *buyeras*) or boxes offered by servants, daughters of the household or even the lady of the house herself ([http://www.lasieexotique.com.ph./](http://www.lasieexotique.com.ph/))

For travellers, a bag of betel may be more essential than food. Chewing betel helps withstand hunger and exhaustion. Warriors too may need it to revive strength and for that added boost of courage (<http://www.lasieexotique.com.ph./>)

The offering of betel was an essential component of every rite of passage such as birth, courtship, betrothal and marriage, healing and finally death (<http://www.lasieexotique.com.ph./>)

The practice of betel chewing used to be prevalent throughout the Philippines from the mountains in the north to the Muslim communities in the south. The tribal people of the Cordillera, commonly called Igorots, carry their containers around their waists or in little specially made baskets. Most of the men, especially the older ones, chew betel constantly. The Igorots believe that the chewing of betel staves off hunger and tiredness as they work long hours in their rice fields (<http://www.lasieexotique.com.ph./>)

According to the Philippine historian, William Henry Scott, "the preparation, exchange and serving of betel nut was the most important social act among the Visayans". Men carried the necessary ingredients with them in little special baskets or pouches ready to share these with friends and associates. On special occasions a touch of musk or a slice of cinnamon bark or some other aromatic flavouring may be added. The chewing of betel also figured in courtship and romance. To offer a partially chewed betel to the beloved was an act of flirtation; to send one in response was an acceptance of his advances (<http://www.lasieexotique.com.ph./>)

To the rural folk, the chewing of betel consists of plucking a betel leaf off the vine growing in the backyard, picking a nut off the areca palm, dabbing it with a lime paste and popping it into one's mouth. In some places, the custom may be a purely social undertaking, offering betel to an acquaintance or to a stranger as a gesture of friendship (<http://www.lasieexotique.com.ph./>)

In central and southern Mindanao, betel chewing may be a simple pleasure and at the same time hold ritualistic associations. This custom is especially noted among the Maranao, Maguindanao, Bagobo and Tausug groups.

Epics in Philippine literature are narratives based on oral tradition that revolve around heroic deeds or supernatural events. Usually in verse, they are chanted or sung. The advent of Western ways have obliterated much

of old customs and traditions in the Philippine countryside (<http://www.lasieexotique.com.ph./>)

Scott notes the role of betel in Visayan epics, "The Panay epic of *Humadapnon* climaxes with a sixty-two line description of betel nut being prepared and served by *binokot* (ugly and stunted) maidens". In a Subanon epic, writes Scott quoting from a source, "when the hero Sandayo appears before Datu *Daugbulawan*", he was so young that "the sword at his waist scraped the floor". He was told, "*Bata, ka'naginapog: podapa no p'nlebon* (Child, no lime for you: you know not woman)".

In the Kalinga Epic, Ullalim verses tell of the importance of betel in the life of the Kalinga. Palms of areca are planted on the slopes of their village hills and the borders of their fields and houses. These trees perpetuate themselves by dropping their ripened fruits on the earth where the "Kalinga live and die". "Behold here, a nice red ripe betel nut," the *ullalim* opens a *Message of the Betel Nut* with. The stereotyped phrase "a nice red ripe betel nut" is repeated several times elsewhere in the verse. Betel nuts are endowed with such "great magic powers. . . that they are almost characters in the play". They are said "to bleed, speak..invite courtship, cause pregnancy, bring bad omens", functioning as actual participants in the events narrated by the bard (<http://www.lasieexotique.com.ph./>)

If we now turn towards folk literature, one of the documented literary pieces is the story of Banna and Lagunnawa which repeatedly mentioned the important role of Piper betel and betel nut chewing in their lives in the story. To our knowledge, in the hundreds of stories documented, there are lots of verses that tell us about betel and areca play a central role.

The betel leaf and nut chewing culture is believed to be an age-old practice as it plays a very important social role; it appears that this custom cannot be disassociated from Kalinga culture. However, the exploration of historical sources and the fieldwork lead us to doubt its ancient nature.

In the light of this recent interest, it is important to understand both the important cultural and literary role of betel nut chewing in Kalinga .

Figure 1 illustrates how the study was conducted. It consists of three parts. The first box in the paradigm is the input, which draws insights from the current status of Piper betel and Areca nut chewing in Kalinga, cultural significance of Piper betel and Areca nut chewing and ethno-therapeutic activity of piper betel and areca nut as reflected in the Kalinga epic, the Ullalim.

The second box contains the process, the analysis of the Kalinga epic, the Ullalim, documentation, interview,

focused group discussions, meta-analysis of related researches and structured questionnaire.

Drawn from the input of the research were the analyzed output on the Piper betel and Areca nut chewing in Kalinga.

Statement of the Problem

There are evidences that piper betel and areca nut chewing is growing rapidly among young people in Kalinga. It is observed that many high school and college students are engaged in chewing piper betel and areca nut.

It is much more likely that young people are influenced by their peers at school and their present situation to chew betel nut. Young chewers should become more aware of the cultural significance of this practice.

More researches are clearly needed on this topic and to clearly differentiate the practices of the young chewers. How widespread is betel nut chewing among younger generations? Are younger people not picking up the habit as a result of assimilation and urbanization? Have the young chewers become addicted with a chronic habit for betel chewing with all its risks, or is this more of a regional identity marker involving sporadic chewing for social reasons to identify themselves and other Indigenous people? Are the practices changing in different jurisdictions as to reasons of chewing and habits? More information also needs to be gathered from the people about betel nut practices and their knowledge on the disadvantages and health risks. Who is chewing? Is it mainly men or women? Do people begin the habit as children, youths, or adults? There is a need to document practices and conduct more researches on the prevalence of chewing habit.

This paper provided an overview on the current status of Piper betel and Areca nut chewing in Kalinga, cultural significance of Piper betel and Areca nut chewing as reflected in the Kalinga Epic, the Ullalim.

Objectives of the Study

This study attempts to review, compile and explore comprehensively the history, literature of Areca nut chewing and the ethno-therapeutic knowledge of the chewers on Piper betel and Areca nut chewing in Kalinga for CY 2017 – 2018.

It is specifically focused to undergo studies on the following objectives:

1. To explore the cultural significance of Piper betel and Areca nut chewing as reflected in the Kalinga Epic, the Ullalim.

2. To determine the reasons of the respondents for chewing piper betel/areca nut.

Significance of the study

Knowing the cultural significance of betel nut chewing in both of its traditional and modern style would lead to its appreciation and young chewers will learn to be responsible chewers if they respect their culture and at the end, they will develop the habit of caring for their culture as they develop the habit of chewing betel nut.

II. REVIEW OF RELATED LITERATURE

Current status about piper betel and areca nut chewing

In Kalinga, they call the areca nut as “*bua*”, the piper betel as “*gawed or lawod*”. If they mix the ingredients, they call it as “*momma or mamma*”. The native who love it, chew it with equal passion. There are many names but one word to describe each state’s relationship with betel nut: passion.

Nowadays, chewers get their share from the market. The supply though comes from the barrios and from other neighboring provinces like Ifugao and Apayao. This is because, the province do not have a piper betel and areca nut plantation. That’s why they cannot produce betel nut that’s enough for consumption.

An outsider who is not aware will be simply stunned if offered betel nuts and leaves instead of water. It is strange how betel nut has come to occupy such an important place in the Kalingas. So much so that visitors may often wonder what’s with the Kalingas that they are always red-mouthed. What is that little pouch hanging around their waist. Or, the little steel box they carry wherever they go? Of all the things, why do they offer betel nut when you go to their homes?

Locals have it in stock and do not run out of it ever. After all, it is not considered a good omen to run out of it. They love to start and end their meal with *betel nut*. Even when a person dies, they resort to the humorous side of life by believing that the person has gone to heaven to have *betel nut* with God. But then it isn’t without a reason that they give such an importance to *betel nut*. As per urban legend, wherein someone had to give up his life due to poverty as he had nothing to offer his friend who came to visit him, to that day, the people are known to serve *betel nut* as a mark of equality to every visitor. All are offered *betel nut* by every home regardless of their economic status. The betel nut, thus, is a great social leveler.

The article of Mohammad, R. et.al (2015) provides an overview of many characteristic of areca nut and therapeutic effect of phytochemical effect of its

biochemical on various disease conditions. Areca nut biochemical compounds have been recently recognized as functionally active molecules, possessing antioxidant, hypoglycemic activity, antiallergic and other useful properties, as well as exert protective effects against cardiovascular and other diseases. As mentioned in the article that further studies are required to know the underlying mechanisms and type of biochemical compounds involved in this beneficial effect and to ensure these studies, it would facilitate for utilization in modern medicine.

Another study found out that piper betel has a great potential of medicinal and Nutrients value. Piper betel is known to worldwide and consumed frequently as mouth freshener and also used as potent source for novel therapeutically value. This value reveals it to be fit for its future usage as a promising source for treating various conditions. Therefore, the same with lots of biological activities and has a tremendous strength to come out as a future herb medicinal and nutrients uses(Sunil Kumar Shah, et. Al.2016)

Cultural significance of piper betel and areca nut chewing

Historically, plants have been known to make or break a culture. In addition to plants being food staples in societies, many plants are integrally linked to a culture because they improved or adversely affected its history (<http://www.encyclopedia.com/history>).

It is easy to think about plants as being used for food or medicine, or even as a source of technology, for example, in the making of spears or blowguns or the furniture in your own house. But, how many people associate a particular plant with a particular culture? Plants had cultural roles in ancient civilizations, are tied to historical events, and can be important identifiers in modern-day cultures. For example, Indigenous peoples or natives used various dye plants to produce unique colors for weavings that symbolized their particular tribe, family, and sometimes their ethnolinguistic identity (<http://www.encyclopedia.com/>)

The betel plant is an evergreen creeper, with heart-shaped leaves. It belongs to the family of Piperaceae, which includes pepper and Kava. It is native to South and South East Asia. It is available in India, Nepal, Bangladesh and Sri Lanka.

Betel leaves play an important role in Indian tradition, customs and rituals.

All auspicious Vedic functions or puja require betel leaves. It is believed that Lord Shiva and Parvati

themselves had sown the seeds of paan in the Himalayan ranges.

Some songs of Eastern India describe the Himalayas as the birth-place of betel leaf or paan.

Betel leaf is considered auspicious in Hindu religion. Betel leaf or Paan holds equal importance with other Hindu sacred trees and plants including Durva Grass, tulasi, bilva, etc.

One of the most important puja items in Hindu rituals is the betel leaf. Known as tumbula in Sanskrit, the word owes its origin to the term 'tamra' that denotes copper which is red-colored. In other regional languages in India the betel leaf is known as pan, nagve, vetta or vettila. The betel leaf is used in pujas by Hindus for both spiritual and health reasons (<https://www.speakingtree.in/blog/significance-of-betel-leafpan-in-hindu-customs-health-benefit>)

Betel nut is a mandatory item on every religious occasion of the community: birth, marriage and death ceremonies. It is not offered to visitors but it is offered to guests by the community during birth ceremonies. During weddings, betel nuts are exchanged between the bride and grooms(<http://food.ndtv.com/opinion>).

Traditionally, betel leaves and betel nuts on a bed of banana leaves are used to welcome the groom. This symbolic gesture represents warmth and respect. During feasts, it is served after a meal as it is believed to aid in digestion. It is an after-meal indulgence more for digestion than anything to do with tradition (<http://food.ndtv.com/opinion>).

When you visit a home of the natives, the host will dole out a small platter of betel nut and offer you before water or coffee is served. This is also a custom seen in many homes of the indigenous peoples. The other places in the region may not go to the extent of offering it to their guests, but they do not love it any lesser. Most of them begin their day with *betel nut* and end with *betel nut*. It would be hard to count the number of nuts an individual would consume in a day(<http://food.ndtv.com/opinion>).

The sentiment resonates all over the region even though the reason may not be the same. For instance, even a wedding is incomplete without betel nut. Right from the invitation till the celebration, betel nut is an important ingredient. If an invitation for wedding comes without the *betel nut*, it could convey that the hosts are not very keen on your presence. In important festivals like, betel nut has its defined place (<http://food.ndtv.com/opinion>).

If we now turn towards folk literature, just recently and partly documented, mention of doma is made in at least two popular stories, GasaLameySenge and

Namtala which dates back to the second half of the 19th century. Similarly, doma appears in the colourful history of Ap Wang Drugay, a highly amusing personality and the Bhutanese equivalent of AkhuTumpa of Tibet, who is supposed to have lived in the 19th century. However, to our knowledge, in the hundreds of stories documented, there is not even a single in which betel and areca play a central role (www.twitter.com/illumelation).

Because of its diffusion and availability, domapani is no more considered an important gift or a mark of honour, but as a symbol of conviviality and friendship. To offer domapani when meeting someone at the bus stops or at the time of a fortuitous encounter implies the desire to chat, and therefore if two persons already know one another, it means that they wish to maintain and strengthen their friendship (www.twitter.com/illumelation).

It is also a mark of friendship, and even of intimacy if someone asks somebody else to prepare a quid. This implies that they know each other well (www.twitter.com/illumelation).

Taiwan has built a distinct culture built around betel, which is now mostly chewed by blue-collar workers and truck drivers. The term “betel nut beauty” or “betel nut girl” harks back to a once-common sight along Taiwan roadsides: scantily-dressed young women selling betel nuts and cigarettes from neon-lit glass enclosures generations (<https://www.huffingtonpost.com/melissa-legarda/asias-crimson-addiction.html> Mar 17, 2016)

In Vietnam, the common saying, “*the betel begins the conversation*”, refers to betel being used to “break the ice” in awkward or formal situations. The ritual forms an important part of new marriages: when the areca nut and the betel leaf come together, it signifies the couple’s love joining as one generations (<https://www.huffingtonpost.com/melissa-legarda/asias-crimson-addiction.html> Mar 17, 2016)

In the Philippines and Thailand, betel chewing was once a widespread cultural custom. Although urban areas, cities, and big towns have replaced the tradition with more modern vices like cigarettes and gum, betel nut chewing remains very much alive in rural areas. Chewing betel in these countries is now mostly done amongst rural tribes, lowland provincial folks, and elder generations (<https://www.huffingtonpost.com/melissa-legarda/asias-crimson-addiction.html> Mar 17, 2016)

In Vietnam also, the areca nut and the betel leaf are such important symbols of love and marriage that in Vietnamese the phrase “matters of betel and areca” is synonymous with marriage. The tradition of chewing areca

nuts starts the talk between the groom's parents and the bride's parents about the young couple's marriage. Therefore, the leaves and juices are used ceremonially in Vietnamese weddings. The folk tale explaining the origin of this Vietnamese tradition is a good illustration of the belief that the combination of areca nut and the betel leaf is ideal to the point they are practically inseparable, like an idealized married couple (<http://web.archive.org/web/>)

Malay culture and tradition hold betel nut and leaves in high esteem. Traditionally, guests who visit a Malay house are presented with a tray of areca nuts and betel leaves, in much the same way as drinks are offered to guests in many cultures around the world. There is even a Malay proverb about the betel nut, “*bagaikanpinangdibelahdua*”, loosely translated *like a betel nut cut in two*, referring to the similarity of two persons such as twins or siblings, because the two halves of the cut betel nut are very similar to each other (<http://web.archive.org/web/>)

III. VI. METHODOLOGY

Locale of the study

This study was conducted in some selected areas in Kalinga.

Research Design

The findings were derived from a qualitative exploration of piper betel and areca nut chewing practices combined with quantitative analysis of patterns of chewing in Kalinga.

Some of the questions that were used as probes are listed on questionnaire.

Documentary analysis was used to gather data on the significance of piper betel and areca nut chewing as reflected in the Kalinga epic, the Ullalim.

Respondents/ Research Participants

The respondents of this study were the betel nut chewers, young chewers were selected from Kalinga State University both college and high school, and the older chewers were taken from the community using the judgment (or purposive) sampling technique, which is similar to quota sampling but without a sampling frame.

Selected participants included those who are chewing piper betel and areca nut long before and until now, and they make it as a habit. Interested participants were recruited if they: 1) are students who are chewing piper betel and areca nut within the past 1 – 2 years 2) identified traditional/ old chewers who started chewing long before and until now they are still practicing it.

Population of the study as to sex

Sex	f	%
Male	74	67.27
Female	36	32.73
TOTAL	110	100

Population as to age

AGE	f	%
Young chewers		
15 – 25	33	30
26 – 35	24	21.82
Older chewers		
36 – 45	18	16.36
46 – 55	12	10.91
56 – 65	15	13.64
66 – 75	8	7.27
TOTAL	110	100

From the above table, it shows that out of 110 respondents, 74 or 67.27% are male and 36 or 32.73% are females.

It is shown further that, 57 or 51.82% are young chewers and 53 or 48.18% are old chewers.

Instrumentation

Structured questionnaire was used to gather information on the prevalence of chewing and current concepts.

The Kalinga epic (Ullalim) and other literary pieces was analyzed to get data on the cultural significance of the piper betel and areca nut chewing.

Guide questionnaire was prepared to facilitate interview with the respondents.

Data gathering

This study was conducted using survey and ethnographic methods to gather the relevant information. The tools used were: documentary analysis of the Kalinga epic and other literary pieces; participant observation and interviewing. A brief description of these two research tools follows: Participant Observation is collecting data through participant observation allows the researcher to be a part of the setting being studied. The researcher is able to learn firsthand the actions and patterns of behaviors of the

participants and allows for the development of a trust relationship between the participants and the researcher. The goal of participant observation as Erickson (1973) tells us is to make the strange familiar and the familiar strange. This new understanding will provide new ways of thinking about that aspect of social interaction that one is researching. In this method, the researcher consciously observes the setting, the participants, and the events, acts, and gestures that occur.

The interview is considered to be one of the major research tools used by social researchers. An interview is defined as a purposeful and directed conversation between two people in order to gather information. Bogdan and Biklen (1982) tell us that the interview is a tool used by the researcher to gather data in the participant's own words in order for the researcher to gain some insights on how the participant interprets the concept studied. Specific questions as a guide to move the interview along were prepared by the researchers.

Data analysis

The analysis and the interpretation of the data collected made use of quantitative and qualitative method. In qualitative research, the process of analysis and interpretation is always ongoing. The informants' consensus was also used to investigate relevant data needed in the study. Responses of all selected informants were

summarized to make general statements about the data/information gathered.

Documentary analysis was used to cull data on the cultural significance of piper betel and areca nut chewing.

Responses of the respondents were subjected to statistical treatment for interpretation and analysis.

IV. RESULTS AND DISCUSSIONS

Present status of Piper betel and Areca nut chewing in Kalinga as to ingredients consumed, proportion of ingredients consumed, classifications of chewers; frequency of chewing, and reasons to start chewing.

Ingredients Consumed

Ingredients for old chewers	Ingredients for young chewers
Betel leaf	Betel leaf
Betel nut	Betel nut
Apog (powdered native shell/Lusu)	Powdered lime (Commercial apog)
Native tobacco	Tobacco
Piper betel fruit (Pudo)	

Proportion of ingredients consumed (N = 110)

Proportion	Descriptive equivalent	f	%
2 betel nut leaves, 1 betel nut, half teaspoon lime, small amount of tobacco	Much (3)	8	7.27
1 betel nut leaf, ½ betel nut, ¼ teaspoon lime, small amount of tobacco	Moderate (2)	57	51.82
½ betel nut leaf, ¼ betel nut, ¼ teaspoon lime, small amount of tobacco	Less: (1)	45	40.91

As to the proportion of the ingredients of momma, 57 or 51.82% of the 110 respondents chew in moderation, that is; 1 betel nut leaf, ½ betel nut, ¼ teaspoon lime, small amount of tobacco.

Classifications of Chewers (N = 110)

Chewers (Age)	f	%
Modern/ Young chewers (15 – 35)	57	51.82
Traditional/old chewers (36 – 75)	53	48.18
Chewers (Sex)		
Male	74	67.27
Female	36	32.73
TOTAL	110	100

The piper betel/areca nut chewers are classified into two according to their age bracket. The young chewers are those with age from 15 – 35. According to the elders, chewing piper betel is for old people only, those whose age is near 40 years old.

From the 110 respondents in this study, 57 or 52% are young chewers and 53 or 48% are old chewers.

Most of the chewers are males, there are 74 males out of 110, and only 36 chewers are female

Frequency of chewing (N = 110)

Frequency of chewing	f	%
Less to 2x a day	30	27.27
3x a day	29	26.36
4x or more a day	51	46.36
TOTAL	110	100

The table shows that most of the chewers chew piper betel 4x or more a day. The other chewers have for at least 3x a day.

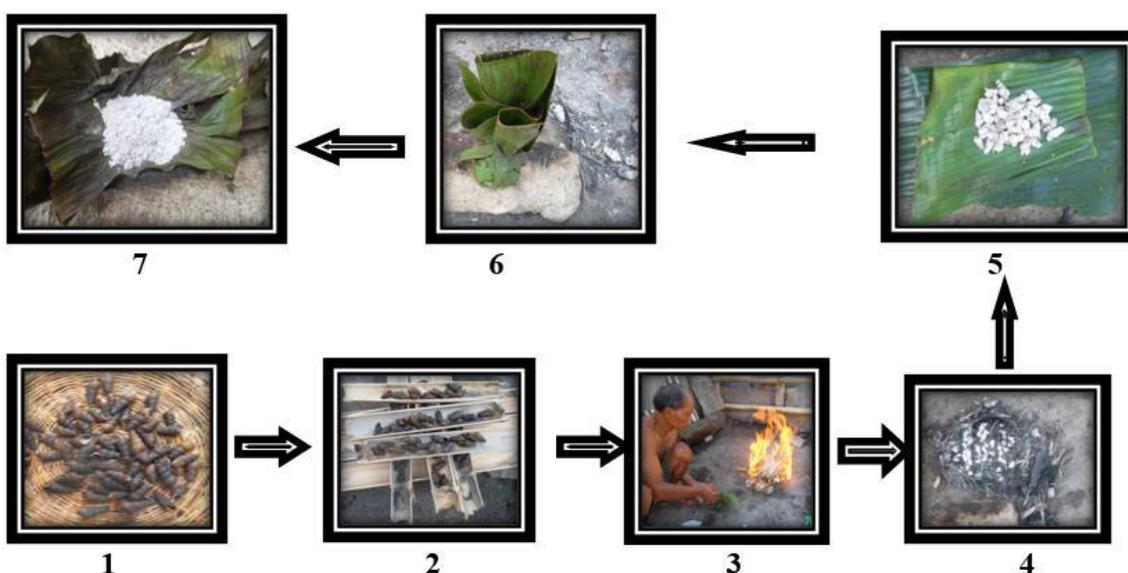
Reasons started chewing (N = 110)

Reason	f	%
Availability	65	59.09
Preparation for others	33	30
Others: Curiosity	12	10.91

Out of the 110 chewers, 65 or 59.09% started chewing piper betel because it is always and readily available. 33 or 30% started to chew because they are preparing the momma for others or for the elders. They pound the mixed ingredients for those elders who have no teeth or have weak teeth. Only 12 or 10.91% started out of curiosity. They started chewing because it was readily available and they were constantly exposed to the practice. A chewer explained this by stating: “I picked it up at the house [...] everyone that stays at my house chews betel nut, my uncles, everybody.”

Traditional preparation of the ingredients to be chewed by momma chewers

Procedure in preparing apog (Traditional)



STEPS:

1. Clean and dry the shell/luso.

2. Place the dried shell into the dry bamboo and pile them one on top of the other.
3. Put fire at the bottom of the piled bamboo, maintain the fire until the shell becomes white and brittle.
4. Spread the ashes to expose the cooked/burnt shell.
5. Pick each shell and place each on a piece of banana leaf.
6. Tie the banana leaf and wait for few hours until the shell is soft and powdered. The banana leaf will maintain the hot temperature and the moisture will be collected and it will help soften the whitened shell until it becomes powder.
7. Open the banana leaf. The powdered shell is now utilized as apog for momma/ piper betel/areca nut chewing.

THE INGREDIENTS FOR THE OLD CHEWERS



Areca nut (Buwa



Piper betel (Gawed)



PIPER BETEL FRUIT (PUDO)

Powdered shell (Apog)



THE INGREDIENTS FOR THE OLD CHEWERS WITH NATIVE TOBACCO



INGREDIENTS FOR THE YOUNG CHEWERS

Significance of Piper betel and Areca nut chewing as reflected in the Kalinga Epic, the Ullalim

The significances or values of chewing of Piper betel and Areca nut or known to Kalinga as Momma were reflected in their epic, The Ullalim. The values associated with momma chewing the social value, cultural value and the therapeutic value. The Ullalim also presented the importance of momma to communication especially between and among strangers and to a man courting a lady. Momma also became a magical character in some versions to show its value in the life of the IKalingas.

To show those significances or values, the four (4) versions of Ullalim namely, The magic Birth of Banna, The Heroic Exploits of Banna, Nibalya da Kalinga or Marriage between enemies and Banna we Mimulaga or Banna becomes a Python, were dissected.

SOCIAL VALUE

Kalinga Text	Translation:
<i>Bumongabongaoyda</i> <i>Kawagawagasonda</i> <i>Di dalanunayonda</i>	Proudly strutting up and down, They speed – up On the path they tread.
<i>Nidaldallatomanda</i> <i>Lamaganmalunawa</i> <i>Maam – ammongdayana</i> <i>Un mangista si moma</i>	As soon as they arrived At the resting place of Malunawa They assembled there To chew betel nut
<i>(Verses 85 – 90 Ullalim II)</i>	

Interpretation:

In every gathering, whether formal or informal, chewing betel nut serves as a unifying force to the people. It is thru the sharing and chewing of momma that they can show their unity and harmony.

Kalinga Text:	Translation:
<i>Annaeallamaganda</i> <i>Inde lamagan Gowa</i> <i>Umallibunnubunda</i> <i>Koda mantaggimoma</i> <i>(Verses 25 – 30)</i>	Here they take a rest That is, on the resting place of Gowa They squat in packed groups Forthwith they chew their betel nut

Interpretation:

Sharing and partaking of momma together helped in maintaining the camaraderie or friendship among the members of the group.

COMMUNICATION

Kalinga Text	Translation:
<i>“Dawawamnagannawa</i> <i>Inapulankonmoma</i> <i>Ta ibaga ta ngadan ta”</i> <i>(Verses 306 – 310, Ullalim II)</i>	Onnawa of Lukiban After a while, began to talk She presented him a betel chew And then she speaks saying

	<p>“Accept this gentleman, This chew I with lime provide So that we may tell our names.</p>
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Interpretation:

Sharing of momma is used to start a conversation or it used to show intention that you want to converse to a certain individual. It is also used as a peace offering to an individual especially to a stranger.

Kalinga text	Translation:
<i>IlamkanuSuyyaba</i>	Look suyyaba
<i>Dinayawdawnaginga</i>	He interrupted those saying
<i>Danikakanagannawa</i>	Come nearer here gentleman
<i>Ta dita di mammoma</i>	For we two shall do the chewing
<i>Teiniggaksiapa</i>	Since I put the interdict
<i>Upongkonlaggunawa</i>	On my child Laggunawa
<i>Da magmagannawa</i>	For the gentleman
<i>Ingsanku pay iyoya</i>	Only then will I consent
<i>Awadumoy mangala</i>	If someone shall go to get
<i>Balos min imagobya</i>	The requital of us Magobya people
<i>(verses 710 – 715, Ullalim II)</i>	If someone shall bring out
	Liddawa’s jar like head
	He shall be the one to marry
	My child laggunawa

Interpretation:

The offering of momma is used to challenge a certain individual either to test his courage or the sincerity. The verses showed that although Suyyaba offered momma to Dulliyaw, his purpose is to show interdiction to the love offered by Dulliyaw to his daughter Laggunawa.

Kalinga Text	Translation:
<i>Lam at Bannagumminga</i>	Lo Banna says
<i>Naudandalisan ta</i>	Here let us begin to share
<i>De gaggaittebuwa</i>	The betel nut slices
<i>Ta lusantaibaga</i>	So that we both may tell
<i>Inakay da ngadan ta</i>	Our respective names
<i>(Verse 75, Ullalim II, Banna Becomes a Python)</i>	

Interpretation:

The offering and accepting the offered momma can start a conversation especially between strangers. It can also be used as a peace offering.

Kalinga text	Translation:
<i>Lam! At bannaguminga</i>	Look Banna now speaks
<i>“An – osogkagannawa</i>	Come down gentleman
<i>Ate gait nibuwa</i>	We two of course are to chew
<i>Lusantaibagangadanta</i>	Slices of betel nut
<i>Maag gay tan an – itta</i>	The two of us are to tell our names
<i>DungdunganImanila</i>	Fothwith Dungdungan of Manila
<i>Lumugsad ate buwa</i>	Uttered a sigh of relief
<i>Nabusda pun nammoma</i>	His mind became thankful
<i>Lam! Bannaguminga</i>	He descended from the betel tree
<i>Nganingadan nu sana?</i>	After they had finished chewing
<i>(Verses 265 -275, The KalingaUllalim II, Banna Becomes a Python)</i>	Banna speaks: What is now thy name?

Interpretation:

The following verses showed further the roles of momma in communication. It is used as an instrument between two strangers to start their conversation.

It is to be noted that under the social value, the cultural value can also be integrated. For instance in the

offering and partaking of momma between two strangers, it is a culture that when the offered momma is accepted by the other, it is equivalent to a friendship, that as long as the other is within the company, nobody can hurt him.

CULTURAL VALUE

Kalinga Text	Translation:
<i>Kanankanu di Ullalimee</i>	Says the Ullalim, it is said;
<i>Awadosa 'ngannawa</i>	Long ago, there was a gentleman
<i>LubunudDulawona</i>	In the village of Dulawon
<i>Un gnagd a buwaya</i>	A terrible crocodile
<i>Batoknankinogkogma</i>	His fear – inspiring tattoo
<i>Nandum an di abala</i>	All over his chest displayed
<i>Nanbuloyisinibla</i>	Reached his shoulder and blades
<i>Naayongansidangla</i>	He dwelled in a house of planks,
<i>Nan – imongsilagimba</i>	It stood in the shadow of dangla – shrubs
<i>Yabuwa 'nmangublawana</i>	And trees of red – ripe betel nuts
(Ullalim II, verses 1 -10)	

Interpretation:

The betel nut played an essential part in the life of the people. Betel nut is a common commodity or distinct plant within the community which will be mentioned when the place is described.

Kalinga Text	Translation:
<i>Summakaysiballawa</i>	When banna had mounted in the house
<i>Mangalait sin buwa</i>	He cuts a betel nut into slices
<i>Idawawanamoma</i>	He presents the betel chew saying
<i>“Dawawaommandiga</i>	“Accept lady dignified
<i>Inapulakonmoma</i>	The chew I with lime provided
<i>No adikanadumla</i>	If though art not averse
<i>Inaginbuludaka”</i>	To my person
(Verses 700 – 705, Ullalim II)	

Interpretation:

It is a culture of the Kalinga people to prepare slices or pieces of betel chew before they will start their travel or journey, for this will serve as their foodstuff along their way.

Momma or betel nut is also used to start a conversation and as a love offering by a man to woman to show his interest to her. The offering of a momma by a gentleman to a lady dignified usually is the start of a courtship. The acceptance of the lady dignified to the offered momma symbolized her acceptance to the proposal of the gentlemen which usually ended to a marriage.

Kalinga Text	Translation:
<i>AngiilakanBanna</i>	Looking at Banna
<i>Laggunawagumminga</i>	Laggunawa now speaks
<i>Bannadallukaud de angwa</i>	Banna please thou ought to make
<i>Ate gait tebuwa</i>	A sliced chew of betel nut
<i>Angan – anungusanta</i>	To be our very last one
(Verse 155, The KalingaUllalim II, Banna Becomes a Python)	

Interpretation:

Kalinga Text	Translation:
<i>Mankalkalognaona</i>	He puts them in a row
<i>De ginaitnabuwa</i>	The betel nuts he had cut into slices
<i>Pasig umassikbuwa</i>	Both of them smiled
<i>Lam kadkanu'tmandiga</i>	Behold now, lady dignified
<i>Kona gay dinawawa</i>	She presently did accept
<i>Lukkusna'tbandila</i>	His bag of red cloth (with betel slices)
<i>Ko pay mantaggimoma</i>	Forthwith she also mouths a betel chew
<i>Napagus di nammomana</i>	As soon as he was chewing
<i>Lam kadkanu'tgannawa</i>	Behold now, gentleman
<i>Ummassiasikbuwa</i>	He laughed and laughed
<i>We inbayabayawna</i>	While holding her shoulders
<i>Ginagaitna'nbuwa</i>	The betel nut slices
<i>Agomakaymandiga</i>	
<i>Inabusnoingista</i>	

Inningaw sin bandila (Verses 90 – 100)	exclaiming; There! Thou art caught! Lady dignified Thou didst it chew What was in the red cloth
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Interpretation:

Betel nut is used in courtship. A gentleman would offer a sliced betel nut to a dignified lady. And when the dignified lady accepted the sliced betel nut it would mean that she accepted the loved offered by the gentleman. That would lead to a constant visit of the man to the house of the lady. And if the man is lucky enough, that would lead to a marriage.

Kalinga text:	Translation
Kanankanu di Ullalimee Intakadgattokmansalla Si lamagan ad Gowa Ta asitamanlanglanga Mipan gay di atta Si ossankallumaga	Says the Ullaim it is said; If we go to have a broad look From the resting place of Gowa So we shall then view from afar Just be eyes as arrows flown
Manimongsilagimba Kanbuwanmangublawana Naay – ayongansidangla Da buloy un sinabla Paspasig un dinuma	Toward one checkered habitat. Coconut palms in clusters grow And nice red ripe betel nuts
Simmakumallumaga Si ossanili un sana No bokon da Dulawona? (Verses 1 to 10)	Overshadowed by dangla shrubs Are the houses made of planks Each abd all of beauty exquisite Who may be dweeling in that checkered habitat In such unique village If not the folks of Dulawon

Interpretation:

The betel is associated with the people since it is one of the noticeable plants found in the community, that it is mentioned when the place is described.

Kalinga text:	Translation:
<i>Adipunassampiga</i> <i>Andi'ninagamidna</i> <i>Di panyonanbandila</i> <i>Andin galaitona</i> <i>Angublawn un buwa</i>	In a single magic they finished There he took hold of His pouch of red cloth There he cuts in slices A nice red ripe betel nut
<i>Nagangput pun nammoma</i> <i>Kananakadganinga</i> <i>InanGimbangonana</i> <i>Dallumipadduwawa</i> <i>Uyawin di lakasa</i> <i>Ta aaminokiwalta</i> <i>Silupku'ndaliwangga</i> (Verses 40 – 50)	When he had finished chewing He then said to his mother: Mother Gimbangonan, As always, let me have The key to the coffer For I shall lay out all My clothes finest wearings

Interpretation:

Momma is a constant fixture in a luggage of an Ikalinga whenever he travels for it has multiple functions. Aside from it is easy to carry, you can chew anytime you want without wasting time to prepare it.

Kalinga Text	Translation:
<i>Summakaysiballawa</i> <i>Mangalait sin buwa</i> <i>Idawawanamoma</i> <i>“Dawawaommandiga</i> <i>Inapulakonmoma</i> <i>No adikanadumla</i> <i>Inaginbuludaka”</i> (Verses 700 – 705, Ullalim II)	When banna had mounted in the house He cuts a betel nut into slices He presents the betel chew saying “Accept lady dignified The chew I with lime provided If though art not averse To my person

Interpretation:

It is a culture of the Kalinga people to prepare slices or pieces of betel chew before they will start their travel, for this will serve as their “balon” along their way.

Momma or betel nut is used to start a conversation or as a love offering by a man to woman called the “Mandiga”.

Kalinga Text	Translation:
Kona sinalukbaba	He (Dulliyaw) lifted
Layawna get mandiga	Dulaw up
Biikniannanawa	And moved the lady dignified
Ippunkidugdug – ana	To the other side of the house
Gumanipak gen buwa	Nothing could be better
Gawan din kullindawa	
Pasigdaassikbuwa	Betel nuts crackled
Gawan di kullindawa	In the midnight darkness
(verses 150 – 160)	Both of them smiled
	In the midnight darkness

Interpretation:

When the lady dignified accepted the momma offered by the gentlemen, they now share in chewing momma. The courtship usually took place during night and the partaking of momma usually lasts until the cock crows in the early morning.

MAGICAL ROLE OF MOMMA

In some versions of the Ullalim, the betel nut played as a character. He can speak so that he is sent to invite people to certain gatherings. He can also cause pregnancy for he is a spirit. Here are some of the verses lifted from the different versions of the Ullalim.

Kalinga Text	English Translation:
<i>Kanankanu di ullalimee;</i>	
<i>Maag, kanunammotwa</i>	Says, it is said the Ullalim
<i>Dulaw ad Kagayana</i>	Suddenly he looked up (saying)
<i>Ya-ukadKagayana</i>	Dulaw of Kagayan
<i>Annayabuwaeeangublawona</i>	Ya – u dear of Kagayan
<i>Ayyawamnin da agta</i>	Behold here a nice ripe betel nut
<i>Teanneamoddinuma</i>	

<i>Kapun ta gaitona</i>	A play thing maybe of the agta urchins
<i>Ya-u ad Kagayana</i>	For this is an exquisite one
<i>Lam kadkanu di buwa</i>	
<i>Pummaltokyadummala</i>	
<i>Lam kadkanugannawa</i>	As soon as it is cut, Ya – u of Kagayan
<i>Matoykabuwaeeangublawona</i>	Look now! The betel nut
<i>Pakamanpangangasa</i>	Sprung up and started bleeding
<i>Paakmanpangangasa</i>	
<i>Moyakmandokkatona</i>	
<i>Kad an imadogyaya</i>	Behold now! The gentleman curses it
<i>(Verses 1-15)</i>	May you die, nice red ripe betel nut, Why dost thou frighten us? Why do I frighten you?
	I come being sent to invite (sent) by a man of Madogyaya

Interpretation:

The betel nut was sent to invite people to attend an occasion. This can also be predicted that the betel nut is a part of a plan to seduce the betrothed Dulaw to fall into the hand of Dulliyaw.

Kalinga text	Translation:
Maagkanunammotwa	Suddenly she looked up
Dulaw ad Kagayana	Dulaw of Kagayan and says
Nakayidulawonka	Please! Thou of Dulawon
Kokamangidawawa	Right now offer me
At singait at buwa	A betel nut slice
Lam at idulawona	
Kona kanuinlawa	Behold the man of Dulawon
De anungus di buwa	He forthwith took out from his bag
Ko pun ipaddawawa	The last betel nut
Nataag e nagila	

Pamanmanpangangasa Ginagaitkubuwa Dimmanninumoyana (Verses 325 – 335)	But just when he is about to offer it He is stupefied at what he saw “why , it is frightening The betel nut I have cut Whither may it have gone
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Interpretation:

The betel nut offered by Dulliyaw to Dulaw disappeared. This will be discovered later that betel nut caused the pregnancy of Dinanaw. This can be interpreted that Dulaw does not deserve to be the mother of Banna for she is not sincere and clean woman.

Kalinga Text	Translation:
Napugus di nanamsana Mangaliakdangana Ko pun ta allanglanga Kokanu gay nipana De nittibun di atta Ginagait e buwa	As her bath was quickly taken She strides homeward But meanwhile looking all around Immediately her eyes were directed Like an arrow onto a betel nut already cut
Ko gay anummadumma Nangalindukmaana Kona kanuingista Mangaliakdangana (Verses 350 – 355)	She picked it up at once Forthwith she smelled it Right away she chewed it Striding up homeward

Interpretation:

The betel nut was the same betel nut that disappeared from the hand of Dulliyaw. It seems that the betel nut chose Dinanaw to be his mother for she is clean.

ETHNO-THERAPEUTIC VALUE

Kalinga Text	Translation:
DungdunganImanila Nabakas di kadudwa Ang-angngit sin buwa Angan –anungusana Maag pun sintummuppa Napasikanuluna Inakay de Malaga BummusngilulunBanna (verses 240 – 245, The Ullalim II, Banna Becomes a Python)	Was broken the mind Of Dungdungan of Manila He slices a betel chew His very last one When suddenly by a spittle The python’s head Got spattered Banna’s head came out

Interpretation:

Momma is used to heal wounds or diseases.

Kalinga Text	Translation:
Adipunmakaginga Bannaidulawona Tepaat un nangonawa Nippunkinannaisna Katlunalgawnasana Umabos gay di moma Un papnaginista (Verses 300 – 305, Ullalim II)	Banna of Dulawon Cannot say a word For he was very hungry Cooked rice he had not eaten For three days now Just only betel nuts He had always chewed

Interpretation:

Momma is used as a food supplement so as to avoid starvation.

Kalinga Text:	Translation:
Sinalsamal pay banna Maaminmadillangana Agsisimot di loda NanlinamagpudGowa Nangalaitibuwa Otpopa pay nammoma (Verses 80 – 85)	Banna still increased his speed So that sparkling glitter all emit At the tips of the loda grasses As he reached the resting place of Gowa He cut a betel nut into And start chewing

Interpretation:

Chewing of momma increases body strength or power. Chewers believe that after a long and tiring journey, chewing momma will replenish the lost energy from their body.

Kalinga Text:	English Translation
Innaminnaiwwagga	He massacred all of them
Tagu we Ibibbila	The people of Bibbila
Nadakadak did ala	The blood was waded
Nangwa pun kanuBanna	And what Banna did
Andi'ninukkayagna	He spread open
Panyona un bandila	His pouch of red cloth
Ginalaitnabuwa	He cut a betel nut into slices
(verses 300 – 305)	

Interpretation:

After a successful exploit, a celebration will surely follow. But the celebration is not complete without the chewing of momma. The chewing of momma adds superfluous satisfaction on the part of the victor that could further boast his reputation as a warrior.

Reasons for Chewing piper betel/areca nut

Reasons for chewing piper betel (N = 110)

Reasons	f	%	Rank
A. Personal			
Health benefit	73	66.36	1
Past time	65	59.09	2
Satisfaction	56	50.91	3
Pleasure	53	48.18	4
Comfort	25	22.73	9
B. Social			
Peer pressure	46	41.82	7
Social acceptance	52	47.23	5
Availability at ceremonies	31	28.18	8
Cultural identifier/ preservation	49	44.55	6
Make new friends	4	3.64	10

Basing from the table, the main reason of the chewers is for personal benefit. They chew piper betel/areca nut for health/ medical benefit. According to them, they chew for cavity protection and to maintain fresh breath or anti-bad breath. There are also medical benefits that they get from chewing, like, healing their ulcer.

Chewing is also considered as their past time activity. They chew in order to satisfy their want and to let them feel relax.

Since piper betel and areca nut are freely offered to chewers, they believe that it is one way to socialize with other people, they chew in order to be accepted by the group and for them to feel that belong to their group.

Chewing or momma is part of the cultural activity of the Indigenous people of Kalinga. It one of their cultural identifier, so that chewing momma is one way to preserve the Kalinga culture.

From the study of Murphy, K. L.; et.al., the reasons why the native people chew piper betel/areca nut are : because of its medical properties, sign of beauty, availability at ceremonies, cultural identifier, social importance, peer pressure, and for social acceptance.

Betel nuts are widely used treatments for various digestive issues too. Aside from its oral care benefits, betel nuts are also used as a vermifuge to eliminate stomach worms such as tapeworms and roundworms. The arecoline

in betel nuts are also known to promote blood sugar control and prevent the onset of diabetes. Other digestive issues address by betel nuts include indigestion, diarrhea, dysentery, and stomach aches (Garcia, E.)

Reasons for chewing piper betel as to sex

Reasons	Male (N = 74)	%	Rank	Female (N = 36)	%	Rank
C. Personal						
Health benefit	46	62	1	27	75	1
Past time	40	54	2	25	69	2
Satisfaction	38	51	3	18	50	5
Pleasure	37	50	4	16	44	6
Comfort	18	24	10	7	19	10
t-test	T = 9.27, t.05 = 2.78; Significant					
Pearson Correlation	Correl = 0.94 Very High Correlation					
D. Social						
Peer pressure	34	46	5.5	12	33	8
Social acceptance	29	39	7	23	64	3
Availability at ceremonies	21	28	8	10	28	9
Cultural identifier/ preservation	34	46	5.5	15	42	7
Make new friends	2	27	9	2	56	4
t-test	T = 2.85, t.05 = 2.78; Significant					
Pearson Correlation	Correl = 0.76 High Correlation					

For both male and female respondents, their personal reasons in chewing Piper betel are for health benefits and for past time.

As to social reasons, the male respondents chew because of peer pressure and for cultural identifier and preservation. For the female respondents, they chew in order to be accepted by the group and by the society.

Furthermore, the result of the t –test shows that there are significant differences on the perceptions of the respondents on their reasons for chewing piper betel/areca

nut when they are grouped according to sex. This implies that their reasons for chewing betel nut depend on their sex.

It is also shown on the table that the relationship between sex and personal reasons resulted to a very high degree of correlation, while sex and social reasons have high correlation. This indicates that sex can influence both the personal and social reasons for chewing the betel nut.

Reasons for chewing betel nut as to age

Reasons	Young chewers (below – 35) (N = 57)	%	Old chewers (36 – above) (N = 53)	%
A. Personal				
Health benefit	26	46	5	9
Past time	38	67	22	42
Satisfaction	23	40	29	55

Pleasure	35	61	23	43
Comfort	19	33	15	28
B. Social				
Peer pressure	26	46	10	26
Social acceptance	19	33	23	45
Availability at ceremonies	26	46	5	9
Cultural identifier/ preservation	26	46	28	43
Make new friends	15	26	12	23
t-test	T = 3.46, t.05 = 12.78; Not Significant			
Pearson Correlation	Correl = 1.00 Perfect Correlation			

As to the age of the respondents, the young chewers chew piper betel for past time and for the sake of pleasure. As to their social reason, they chew because of peer pressure, the ingredients are always available during occasions and ceremonies, and for them to preserve their culture, since they consider chewing as part of their cultural identifier.

The old chewers do the habit of chewing in order to satisfy their want and it also serve as their past time activity. It already became a habit for them and they are already addicted on it. Chewing for them is an indication of social acceptance. This is also their way of preserving their culture since this activity became part of their way of life.

The table further shows that there is no significant difference on the perceptions of the respondents on their reasons for chewing when they are grouped according to age.

Moreover, based on the gathered data, the computation revealed a perfect correlation between age and the reasons of the respondents for chewing piper betel/areca nut as evidenced by the result of the Pearson Correlation test of 1.0. This implies that age can directly influence the reasons for chewing betel nut, however their reasons do not differ as to age.

V. CONCLUSIONS

The cultural significance of piper betel/areca nut chewing is clearly reflected in the Kalinga Epic, the Ullalim. From the literary analysis of the epic, it shows that there are many cultural significances that are illustrated such as social value, cultural value, and ethno-therapeutic value.

The quantitative analysis confirmed the qualitative exploration of piper betel/areca nut chewing, and has provided further evidence of the variability in

chewing practices among young and old chewers. If future research should include an intervention, the differences in chewing practices should be considered for the intervention to succeed.

The early age of initiation reflects the urgent need to intervene and protect this vulnerable group from falling prey to this addiction. If not stopped at present, these young chewers may indulge in other addictive habits including tobacco use and cigarette smoking.

RECOMMENDATIONS

The young generation should increase their awareness on the cultural significance and the therapeutic value of chewing piper betel/ areca nut so that they will learn to respect this cultural activity and how to be a responsible chewer.

Although *moma* is a significant cultural activity for Kalingas, chewers must be made to understand the importance of cultural sensitivity and be responsible in taking into account others in the social milieu who consider betel nut chewing as socially unacceptable.

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