

GENDER ROLES IN THE FOOD SAFETY IMPLEMENTATION IN FISH PROCESSING TECHNOLOGY

***Jean F. Nebrea,** **Cherrylene G. Macachor, ** Renissa S. Quiñones,
** Corazon P. Macachor and ** Charena J. Castro
**Bohol Island State University- Main Campus
C.P.G. Ave., Tagbilaran City, Bohol, Philippines*
***Cebu Technological University- Main Campus
Corner M.J. Cuenco Avenue, Cebu City*
jpfulneb@gmail.com

GAF7

**AIT, Bangkok, Thailand
18-21 October 2018**

INTRODUCTION

- ▶ **World Health Organization** is promoting efforts to improve food safety, from farm to plate and everywhere in between, on WH Day, 2015, ***“From farm to plate, make food safe”***
- ▶ **In the Philippines**, women form a large part in agricultural workforce and are involved in the preparation, processing and marketing of agricultural commodities (Gaerlan et al. 2012)

INTRODUCTION


- ▶ **Bohol Aqua Marine Development Corporation (BAMDECOR)**
 - one of the **Hazard Analysis Control Critical Point (HACCP)** accredited industry workers
 - observed good manufacturing practices (GMP) to ensure food safety

INTRODUCTION

► Porter, 2012

- Food safety should be applied to fish processing industries producing chilled deboned milkfish and dried fish
- In processing, salting through brining is the preparatory step in fish handling and drying
- Further, it was emphasized that **men dominated** in harvesting sector of fisheries, **while, women** are usually the majority workers in fisheries services and post harvest sectors

INTRODUCTION

- ▶ **CTU researchers - extensionists** in collaboration with the **DTI, Cebu Province** conducted a training on fish processing particularly salted and bottled fishery products integrating the patented method of using low temperature pretreatment with coconut water with the two cooperatives in Bantayan Island, Cebu with the emphasis of GMP and HACCP as a basis for gender roles on food safety.
- 


OBJECTIVE

- ▶ The purpose of the study was to determine the gender roles in the food safety implementation in fish processing technology.

METHODOLOGY

- ▶ **Descriptive method of research** using survey questionnaire on the implementation of GMP and HACCP in fish processing technology integrating the research technology output of coconut brine solution in chilled condition application of salted fish and bottled sardines.

METHODOLOGY

- ▶ A **modified questionnaire** was prepared based on one developed by Lolita V. Villareal and Jeremy M. Turner (Villareal and Turner, 2014)
 - ▶ Research subjects were the fish processors from Poblacion, Sta. Fe Cooperatives (POSTAFE) and Madrideojos Fish and Food Processing Association (MAFFA)
 - ▶ Administered by the CTU researchers to the two trained groups
 - ▶ Data gathered were subjected to descriptive statistics particularly **percentage, range and weighted mean**
- 

RESULTS AND DISCUSSION

Respondents Background

Gender	Percentage
Men	7%
Women	93%
Total	100%

Table 1. Gender profile

RESULTS AND DISCUSSION

Respondents Background

Female Respondents

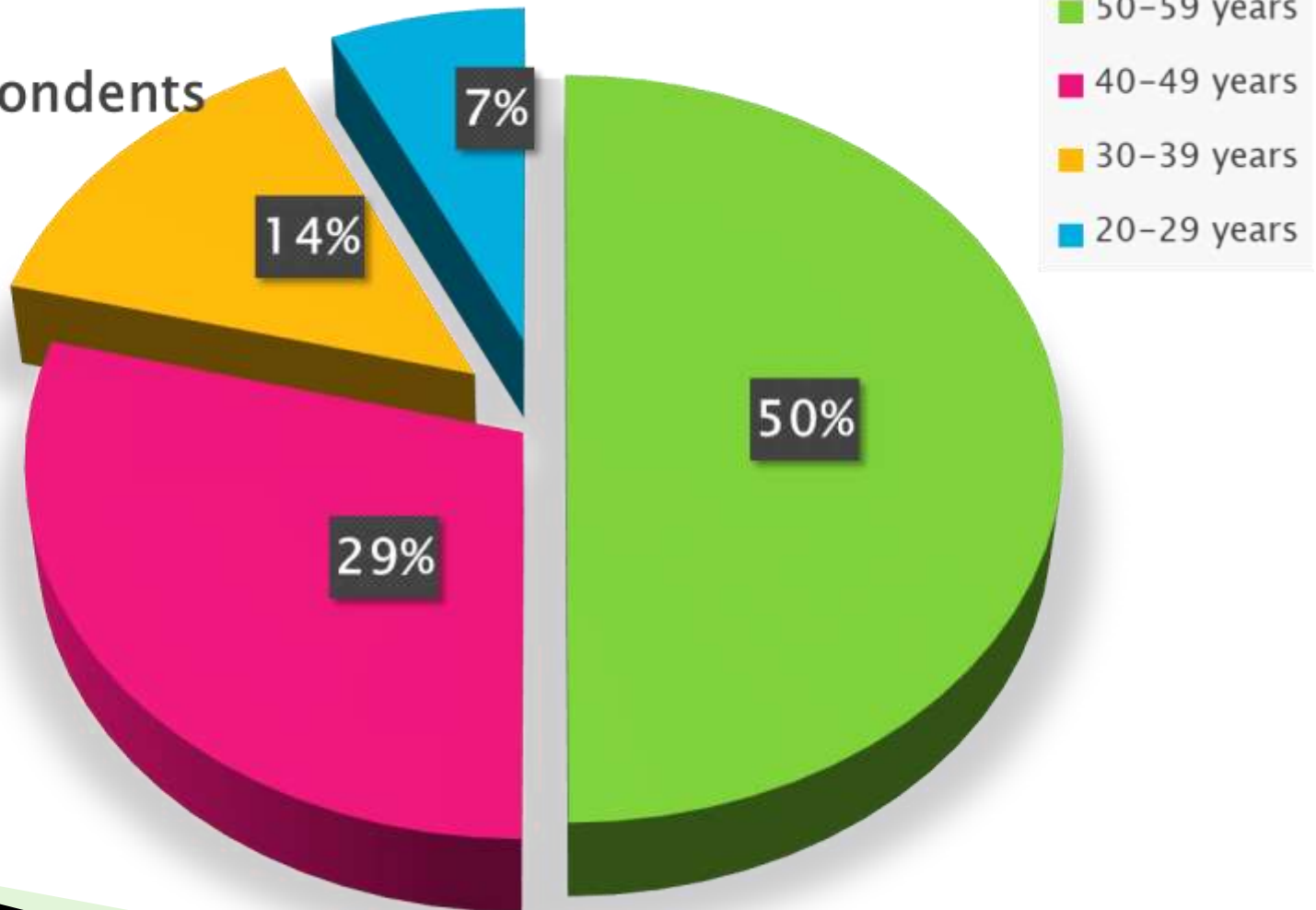


Figure1. Age profile

RESULTS AND DISCUSSION

Respondents Background

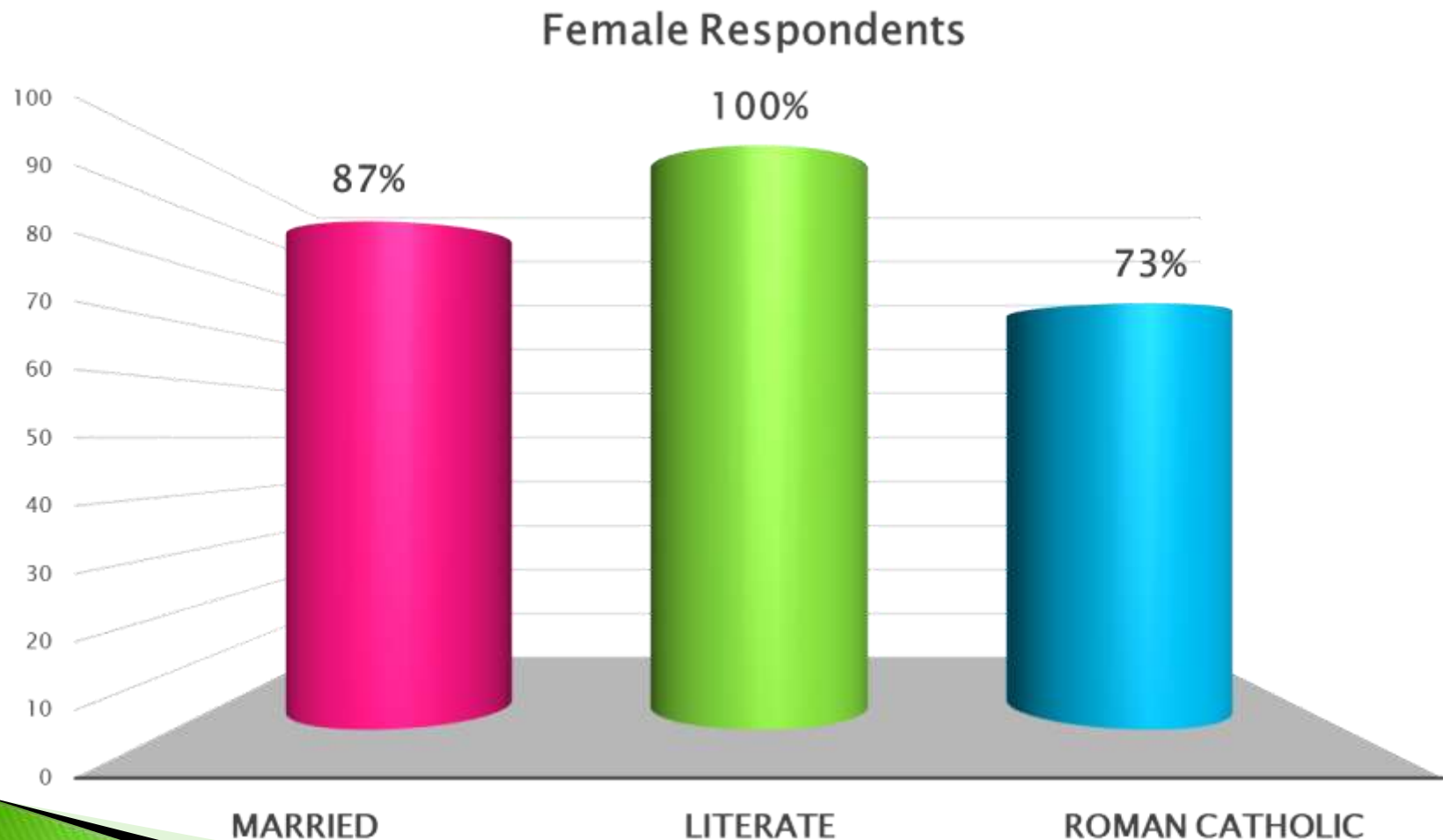


Figure 2. Respondents profile as to status, literacy level, & religion

Work/Occupation	Main		Subsidiary	
	No. Women	No. Men	No. Women	No. Men
Fish Processing	20	0	8	2
Fish/Food Marketing	8	2	16	0
Food Catering	0	0	4	0
Total	28	2	28	2

Table 2. The main and subsidiary work/occupation of the men and women in fish processing.


Men	Women
Preparation of Fish as Raw Materials for Processing	
<ul style="list-style-type: none"> ➤ Select and buy the fresh fish from the fishermen ➤ Chill the fish using chilled brine solution ➤ Proper fish handling and delivery to processing area 	<ul style="list-style-type: none"> ➤ Port fish samplers ➤ Select and buy the fresh fish from the fishermen ➤ Chill the fish using chilled brine solution ➤ Proper fish handling and delivery to processing area ➤ Observing GMP practices, ie proper personal hygiene and sanitation
<p>Processing</p> <ul style="list-style-type: none"> ➤ Loading the bottled fish into the pressure cooker ➤ Exhausting, venting and processing of bottled fish for 90 minutes at 240 degrees Fahrenheit ➤ Observing the constant temperature for the within the required processing time ➤ Complete sealing and cooling of bottled products at room temperature 	<ul style="list-style-type: none"> ➤ Pre-treatment of fish using chilled coconut water based brine solution below 5 degrees Celsius ➤ Cutting the fish into jar sizes ➤ Cleaning the fish by removing the gills and internal organs and washing with chilled coconut water based brine solution ➤ Packing the brined fish into the preserving jars and steaming for 30 minutes ➤ Preparing the sauce and adding into the steamed fish in jars ➤ Loading the bottled fish into the cooker ready for processing ➤ Marketing the finished bottled products.

Table 3. The roles of women and men in food safety implementation in fish processing.




Figure 3. Men and women in the food safety implementation of fish processing industry in the provinces of Cebu-Bohol, Philippines

CONCLUSION AND RECOMMENDATION

- ▶ Women dominated the post-harvest processing of salted and bottled fish products of the two identified fish associations.
 - ▶ Both women and men were actively engaged in the implementation of food safety during the fish processing.
 - ▶ Continuous monitoring and evaluation in the integration of GMP and HACCP in fish processing industry in order to ensure safe processed foods are recommended.
- 

ACKNOWLEDGMENT

The researchers wishes to acknowledge the support of BISU-CTU family, POSTAFE Sta. Fe, Cebu, MAFFA, Madridejos, Cebu, DTI-Cebu Province, BAMDECOR-Bohol, Philippines.



REFERENCES

- ▶ <http://seafood.oregonstate.edu/.pdf%20Links/FAO-Codex-Alimentarius-Code-of-Practice-for-Fish-and-Fishery-Products.pdf>
- ▶ Gaerlan, Rosario Segundina P., Remely B. Lachica and Marina B. Dumol, 2012. 2012. Enhancing Rural Women's Participation in Fisheries: Postharvest Livelihoods, Ilocos Region, Philippines. Gender in Aquaculture and Fisheries: Moving the Agenda Forward. Asian Fisheries Science: Special Issue. Vol. 25S. pp. 199-205 @ Asian Fisheries Society. ISSN 0116-6514
- ▶ Macachor, Corazon P. and CS Baga. 2015. Method of Producing Marinated Mullet (*Mugil cephalus*) Chunks. UM Registration No. 2/2014/000712, 29/05/2015).
- ▶ Villareal, L.V. and J.M. Turner. 2004. Guidelines on the Collection and Demographic and Socio-economic Information on fishing Communities for use in Coastal and Aquatic Resources Management. Food Agricultural Organization (FAO) Fisheries Technical Paper 439. Food Agriculture Organization of the United Nations Rome. Accessed at: <http://www.fao.org/docrep/006/y5055e/y5o55e0e.htm>, on 14 January 2013.
- ▶ Porter, Marilyn, 2012. Why the Coast Matters for Women: A Feminist Approach to Research on Fishing Communities. Gender in Aquaculture and Fisheries: Moving the Agenda Forward. Asian Fisheries Science: Special Issue. Vol. 25S. pp. 59-73 @ Asian Fisheries Society. ISSN 0116-6514
- ▶ World Health Day, 2015. Food Safety: What you should know. Accessed in http://www.searo.who.int/entity/world_health_day/2015/whd-what-you-should-know/en/).

Thank you for listening