



ITEKES BALI
Institut Teknologi dan Kesehatan Bali



BALI BICHS 2019

PROCEEDINGS



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Ns. Gst. Kade Adi Widyas Pranata, S.Kep., M.S.
Ns. Anak Agung Istri Wulan Krisnandari D, S.Kep., M.S.
Ni Made Ayu Yulia Raswati Teja, S.Si.T., M.Kes

**The 1st Bali Biennial International Conference on Health Sciences
(The 1st Bali BICHS)
“Healthcare Innovation for Optimal Health”
July 12-14, 2019, Bali, Indonesia**

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ITEKES Bali, Denpasar, Bali - Indonesia

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“Healthcare Innovation for Optimal Health”

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**GREETING FROM RECTOR OF
INSTITUTE OF TECHNOLOGY AND HEALTH BALI**



Improving the quality of life of the community in the health sector can be achieved by the development of science and health innovations, both in terms of academics and practice. The development is expected to occur in all health professional settings. The development is expected to be able to improve the quality of health workers and health services.

Nowadays, the development of science and innovation in each health profession has been progressing quite rapidly. However, the dissemination of information related to the development remains solely centered on respective profession, thus it is necessary to initiate a forum for expertise sharing among health professions. The forum is expected to provide valuable insight and enhance cooperation among health professions to improve the quality of health services.

In view of this basis, the Institute of Technology and Health Bali (formerly known as STIKES Bali) initiates a forum of international conference entitled The 1st Bali International Biennial Conference on Health Sciences as a platform to share knowledge, experience, perspectives and innovations for health professions in Indonesia. The topics covered in this international conference are innovations in health care, education and learning, leadership and healthcare systems, healthcare practice and services.

Denpasar, July 2019

Rector of Institute of Technology and Health Bali,

I Gede Putu Darma Suyasa, S.Kp.,M.Ng.,Ph.D

**GREETING FROM THE CHAIRPERSON OF
THE 1ST BALI BICHS**



It is a great honour to me to welcome all distinguished speakers and participants from all over the world to the 1st Bali Biennial International Conference on Health Sciences: Healthcare Innovation for Optimal Health, held in Convention Hall, Institute of Technology and Health Bali, Denpasar, Bali, Indonesia on July 12th – 14th, 2019. As part of international healthcare practitioner community, we are actively challenging ourselves to be one of the leading institutions in innovation, as well as help community to achieve optimal health.

I would also like to express my gratitude to the Co-Hosts, which come from reputable universities across the world, for their outstanding contribution to this conference. I believe all speakers will be addressing the issue about innovation from their specialties or profession during the conference and there will be fascinating discussion in concurrent sessions, as the topic of the abstract that will be presented in this conference are vary and presented by speakers from many different countries.

I do hope this conference could be a way to healthcare practitioner to share ideas and knowledge, as well as broaden the network between participants, universities and countries. Further collaboration between universities are very expected, thus the result of any discussions and sharing ideas in this conference could be followed-up, resulting in our contribution in achieving optimal health for people throughout the world. Please enjoy your stay in Bali and welcome to the island of thousand temples.

Denpasar, July 2019

Chairperson of the 1st Bali Biennial International Conference on Health Sciences,

Ns. Gst. Kade Adi Widyas Pranata, S.Kep., M.S.

FOREWORD

This book contains the proceedings of the 1st Bali Biennial International Conference on Health Sciences (1st Bali BICHS) 2019 held by the Institute of Technology and Health Bali (ITEKES Bali) on 12th-14th July 2019. The theme for the 1st Bali BICHS is “Healthcare Innovation for Optimal Health”, with the purpose to increase the capacity of healthcare profession, to establish and strengthen the network with multinational stakeholders, and to spread current experience, knowledge and innovation about how to achieve the highest quality of care services and its related factors (education, research, and policy).

This international conference provides opportunity for speakers and participants to share knowledge and ideas related to the topic. This is a wonderful opportunity to create and improve network with other professional from all over the world by exchanging ideas and experiences, sharing new ideas, renewing old friendships and working in collaboration. Focusing on the theme of improvement of healthcare innovation to achieve optimum health, reflects on the essential role and impact that almost everyone agrees that healthcare profession innovation is an important factor for improve and achieve the highest quality of healthcare services. As one of the educational institutions engaged in the health sector, ITEKES Bali committed to leading innovation by encourages academics to carry out and develop activities related to education, reseach and community service that are useful and beneficial for the achievement of optimal health for community.

The 1st Bali BICHS received 97 paper submissions, of which 22% were accepted as full papers. Of the 22%, only 81% of the authors were willing to continue the review process and the rest withdrew their articles. The submission’s high quality imposed difficult choices during the review process. To evaluate each submission, a doubleblind paper review was performed by the Reviewer. We would like to thank to all the reviewers and invited speakers to share information and experiences during the conference and paper review process. Also to all participants, to the committee of the conference, to those who have helped us to make this conference successful, and also to all authors with their quality work as the essence of this conference.

We wish you all an inspiring Conference and an unforgettable stay in Bali, Indonesia. We hope to meet you again in the 2nd Bali BICHS.

Ns. Gst. Kade Adi Widyas Pranata, S.Kep., M.S.

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TABLE OF CONTENT

Committee Structure	ii
Greeting from Rector of Institute of Technology and Health Bali	iv
Greeting from The Chairperson of the 1st Bali BICHS	v
Foreword	vi
Table of Content	vii
Relationships between Fatigue, General Health Perception, Social Support, and Quality of Life in Patients with Cancer Undergoing Chemotherapy <i>Ni Putu Kamaryati, Ni Luh Adi Satriani and Ni Luh Lasiyani</i>	1
Clients with Mechanical Ventilator in ICU Room Ulin General Hospital Banjarmasin <i>Era WS, Achir Yani and M. Syafwani</i>	7
Analysis of Speed and Ease of Use of the Older Adults Mobility Detection Model Using Google Form by Posyandu Cadres in the Community <i>Riksa Wibawa Resna, Dewi Rahayu, Wahyu Noviantoro and Hannaa Nurfatima</i>	13
Student's Perception and Learning Experience About Interprofessional Education <i>Vivi Retno Intening</i>	16
Qualitative Study of Post-Traumatic Stress Disorder (PTSD) Refugees of Pregnant Women in Mount Agung Eruption Disaster in Karangasem-Bali <i>N. Nuartini and Rai Rahayuni</i>	18
The Effect of Abdominal Stretching Training on the Decrease of Dysmenorrhea on Teenage Girls in 1 st Grade Senior High School SMAN 6 Denpasar <i>Dewa Ayu Sinar Putri Pertami, I Gusti Ayu Rai Rahayuni and Ni Made Nurtini</i>	22
The Effect of Psycheducation towards Family Response about Empowering People with Mental Disorders <i>Ni Nyoman Pebrina Anderyani, I Gusti Ayu Rai Rahayuni and Gusti Ayu Dwina Mastryagung</i>	27
Nutritional Status of Nursing Graduate Students through Measurement of the Body Mass Index (BMI) <i>I Made Sulidra Budiayasa, Made Rismawan, Ni Wayan Novi Suryati and Gst. Kade Adi Widyas Pranata</i>	31
The Effectiveness of <i>Sisya</i> Dance Training on Increasing Self-Esteem for Housewives <i>Ni Komang Rahayu Astini, I Gusti Ayu Rai Rahayuni and Ni Made Nurtini</i>	37
The Relationship of the Role of Health Service Integrated Post Cadres on the Knowledge and the Attitude of the Mother about Stunting Prevention <i>Pande Made Fitawijamari, I Gusti Ngurah Made Kusuma Negara and Nadya Treesna Wulansari</i>	42

Relationship between Knowledge and Behavior of Informal Workers in Tourism Industries in Using Sun Protection <i>Komang Rizki Rahayu Putri Pradnyayanti, I Gede Putu Darma Suyasa and Idah Ayu Wulandari</i>	47
Relationship of Nutritional Conscious Family Behavior with Stunting in Songan Village <i>Ni Putu Ari Anggarani, I Kadek Nuryanto and Ni Ketut Noriani</i>	52
The Effect of Health Promotion through Family Approach to Community Knowledge of Clean and Healthy Living <i>Ni Wayan Putri Tirta Mas Maharani, I Kadek Nuryanto and Asthadi Mahendra Bhandesa</i>	57
The Effect of Health Education on Knowledge, Attitudes and Belief about Acute Coronary Syndrome <i>Nadiyah Rachman, I Gede Putu Darma Suyasa and Idah Ayu Wulandari</i>	62
The Relationship of Health Belief Model Components to Adolescent Readiness to Conduct Voluntary Counselling Testing <i>Ni Putu Wisma Ekawati, Ni Luh Adi Satriani and Idah Ayu Wulandari</i>	69
The Effect of Counseling on Toddler Posyandu to Mother's Toddler's Knowledge in Banjar Dalem, Songan Village Kintamani District <i>Komang Sartika Dewanti, Made Rismawan and I Putu Gede Sutrisna</i>	78

Relationships between Fatigue, General Health Perception, Social Support, and Quality of Life in Patients with Cancer Undergoing Chemotherapy

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Abstract:

Quality of life (QOL) is an important health outcome indicator in oncology. Many factors were contributed to QOL, such as fatigue, general health perception, and social support. The purpose of the study was to examine the association between fatigue, general health perception, social support, and health related quality of life in patients with cancer undergoing chemotherapy in Sanglah Hospital, Bali. The study was a cross-sectional design involving 119 patients with cancer by convenience sampling. Each participant was interviewed according to structured questionnaires. Main results found that fatigue was negatively and significantly associated with physical, psychological, social, and environment domain of QOL ($r = -.23$, $r = -.28$, $r = -.34$, $r = -.30$, $p < .05$, respectively). General health perception was positively and significantly associated with physical and environment domain of QOL ($r = .18$ and $r = .19$, $p < .05$), and social support was positively and significantly associated with physical, psychological, and social domain of QOL ($r = .20$, $r = .28$, and $r = .23$, $p < .05$, respectively). The results of this study suggested that health care providers should take current factors during treatment in patients with cancer undergoing chemotherapy to enhance the QOL of patients.

Keywords: Quality of Life, Cancer, Fatigue, General Health Perception, Social Support

1 INTRODUCTION

Cancer is one of leading cause of death worldwide. Based on CONCORD-3 surveillance of cancer survival, there was 75% of all cancer types diagnosed worldwide every year both in low-income and high-income countries (Allemani et al, 2018). In 2016, WHO recommended strengthening health care system to make certain early detection, accessibility, cost-effective, and high quality of care for all patients with cancer (WHO, 2016).

A single or combined treatment is an alternative to increase the survival, reduce mortality, and increase QOL. Chemotherapy is widely used treatment for cancer. It refers to the drugs preventing cancer cells from dividing and growing. Chemotherapy can work throughout the whole body compared to other therapies, such as surgery, radiation just taking off cancer cells from location. However, chemotherapy is an invasive treatment

that can have severe adverse effects, such as pain, fatigue, nausea (Karaytug, Gurbuz, Nayir, & Tamam, 2016). Moreover, patients need regular chemotherapy over a period and those facts associated with physical, psychological well-being of patients undergoing this therapy (Prigerson et al, 2015).

Research on QOL of patients with cancer has grown over recent decades but little known what the factors can contribute the QOL of patients with cancer specifically receiving chemotherapy. A limited study used conceptual framework to guide the research study. Additionally, variety of studies result have recognized that QOL of cancer survivors caused by many factors with positive or negative significant association. Moreover, prior QOL studies of patients with cancer undergoing chemotherapy have investigated kinds of therapies effected to cancer (Alkaf, 2016; Irawan, Rahayuwati, & Yani, 2017). Therefore, this study aimed to examine the

association between fatigue, general health perception, social support, and QOL in patients with cancer undergoing chemotherapy in Sanglah Hospital Bali.

Knowledge from this present study would be benefit for planning intervention studies to effectively manage symptoms and activate support sources associated with chemotherapy treatment. Also, the findings may lead to the development of effective management strategies with improving QOL as a goal.

2 LITERATURE REVIEW

The conceptual framework in this study drew on the Revised Wilson and Cleary Model of HRQOL developed originally by Wilson and Cleary in 1995 as figure 1 (Ferrans, Zerwic, Wilbur, & Larson, 2005). The framework guided to explore the QOL of patients with cancer undergoing chemotherapy.

Ferrans and colleagues defined the QOL as a single outcome and the final component of the model. There are some factors influence the overall QOL including biological function, symptoms, functional status, and general health perception. Characteristics of the individual and characteristics of the environment are aspects can affect the QOL directly or through by factors as stated previously. Wilson and Cleary characterized the QOL as subjective perception of an individual related to how satisfied individual about life as a whole (Wilson & Cleary, 2005).

According to the framework, the symptoms defined as a perception of patient on an abnormal physical, emotional, or cognitive state characterised as physical or psychological. The symptoms were result of cancer disease and treatment (Strak, Tofthagen, Visovsky, & McMillan, 2012). Fatigue is commonly symptom experienced by patients undergoing chemotherapy. It interferes ability of patients to perform their activities daily living. Consequently, it impairs patient's QOL (Heydarnejad, Dehkordi, & Dehkordi, 2011).

General health perception is another variable influenced overall QOL. When persons rate their health, they naturally consider various aspects of their health (Ferrans et al, 2005). The framework was stated clearly that QOL of person can be correlated directly with person's perception about their general health.

Patients living with cancer need supports from significant others to assist them overcome life-threatening aspects on their illness (Lumbdubwong et al, 2014). Previous studies conveyed that social support is needed and had been shown as an

essential source to reduction emotional stress for cancer survivors and improve coping abilities for better QOL (Lazarus & Flokman, 1984; Lumbdubwong et al, 2014).

Prior studies regarding patients with cancer undergoing chemotherapy, predominantly, have focussed on the effect of therapies in cancer (Prigerson et al, 2015; Alkaf, 2016; Irawan, Rahayuwati, & Yani, 2017). However, limited study conducted to find the contributing factors to QOL for cancer survivors. Further, a limited study using theoretical framework as study underpinning in Indonesia.

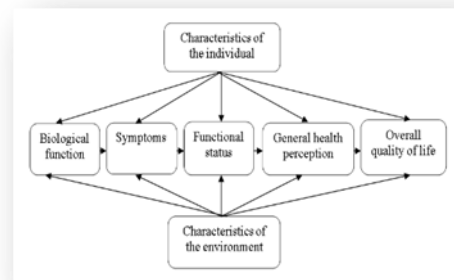


Figure 1: The Revised Wilson and Cleary Model for Health Related Quality of Life (Ferrans et al, 2005).

3 METHOD

3.1 Design and Sample

This study used a cross-sectional, correlational research design.

3.2 Sample

There were 119 participants recruited from the oncology ward using a convenience sampling. Sample size was calculated by G*Power Analysis using effect size from previous study (Lusiatus, Mudigdo, & Murti, 2016) and added 30% for considering attrition rate. The alpha set in .05 and power in .80 (Burns & Groove, 2009; Heavey, 2015). The inclusion criteria were patients with cancer: who undergoing chemotherapy, were able to speak in Indonesian and Balinese language, were willing to participate the study. Patients who were in critical condition or had severe complication eliminated from being eligible to participate in the study.

3.3 Instruments

Data collection involved the participants responding to 5 questionnaires. The questionnaires included the Personal Information Form (PIF), Visual Analog Scale for fatigue measurement, Self-Rated Health, Medical Outcomes Study Social Support Survey, and WHOQOL-Bref.

The Personal Information Form was developed by primary researcher. Eight of the items were designed to obtain general personal information about each participant included age, gender, level of education, occupation, health insurance, type of cancer, length of disease suffering, and length of chemotherapy.

Fatigue was measured by the Visual Analog Scale (Waltz, Strickland, & Lenz, 2010; Lee, 2012). A single numeric rating scale was used with the rates from zero (no fatigue) to ten (extremely fatigued). The instrument was examined in terms of its content validity that showed its relevance and clarity.

The Self-Rated Health (SRH) used a single-item of individuals' perception about general health status. The SRH is determined from the question "In general, how would you rate your overall health?". Participants' responses can be 0 (poor) to 10 (excellent) (Meng, Xie, & Zhang, 2014). In this study, the content validity was examined.

The Medical Outcome Study Social Support Survey was applied to measure social support. It was developed by Sherbourne and Stewart (1991) and measures the perceived availability of the social support contained 19 items. The total scores calculated from the summation of 19 items with the minimum scores = 19 and the maximum scores = 95. The final score was transformed from 0 to 100. The higher scores indicated more supports available. Construct validity was established; and the internal consistency reliability of the original scale was .97 (Sherbourne & Stewart, 1991). In this study, content validity and internal consistency reliability using Cronbach's alpha coefficient were examined. The reliability of the present study was .95.

The WHOQOL-Bref developed by WHO (1996) was used as a measure of individuals' perceptions on their own QoL. It contained 26 items grouped into 4 domains (physical, psychological, social, and environmental) and 2 items measuring overall QoL and health. The scores of each domain calculated were based on WHOQOL administration of scoring (WHO, 1996; WHOQOL, 2004) and the scores were transformed from 0-100 (WHO, 1996). Higher scores indicated better QoL. The construct validity was established by Skevington, Lotfy, and

O'Connell (2004). The internal consistency reliability of the original scale was physical domain = .80, psychological domain = .76, social domain = .66, and environmental domain = .80 (WHOQOL Group, 1998 cited in Teodorescu et al., 2012). This instrument was examined in terms of the content validity and the internal consistency reliability by using Cronbach's alpha coefficient; and the results were adequate in this study.

3.4 Procedures and Ethics

Before starting data collection, the Ethical Committee on Human Rights had been approved. The Ethics Committee of the hospital, where data were collected from December 2016 to January 2017, permitted to conduct the study.

The investigators explained the objective and procedure of the study. After participants gain sufficient understanding, they were requested to sign the consent form. All were assured they could refuse to continue at any time without effecting health services received. Participants in the study were assured their responses and identities would be kept confidential and anonymous. Data of participants were kept in a safe place and destroyed after study end. The questionnaires were completed by using structured interview at oncology ward.

3.5 Data Analyses

Descriptive statistics were used to analyse the demographic data, fatigue, general health perception, social support, and HRQoL. Spearman Rank correlation coefficient (r) was calculated to determine the association between fatigue, general health perception, social support, and HRQoL.

4 RESULTS

Participant's personal information and health characteristics: The 119 participants ranged in age from 16 to 71 years (\bar{X} = 49.98, SD = 11.13) and predominantly were female (n = 85; 71.4%); graduates of elementary school (n = 43; 36.10%); as a housewife (n=35; 29.40%); and using BPJS (Badan Penyelenggara Jaminan Sosial or social Insurance Administration Organization) for health insurance (n = 107; 89.90%). Majority of participants undergoing chemotherapy because of cervical cancer (42; 35.30%) and length of disease suffering \leq 12 months (96; 80.67%). Also, more than a half of participants reported they had

undertaken the therapy since 3 months from data collection (61; 51.26%).

The mean scores of the participants' fatigue, GHP, and social support tend to be high as presented in Table 1, were 5.70 (SD = 1.83), 5.69 (SD = 1.66), and 77.11 (SD = 13.06) respectively. Similarly, the mean scores physical, psychological, social, and environment domain of QOL were 51.11 (SD = 10.54), 54.16 (SD = 12.43), 59.54 (SD = 14.61), and 54.87 (SD = 10.80) respectively. The overall QOL scores was tended to be high, it means participants have a better QOL.

Table 1: Mean and standard deviation of fatigue, general health perception, social support, and QOL (n = 119).

	Mean	SD	Range
Fatigue	5.70	1.83	1-10
GHP	5.69	1.66	0-10
Social support	77.11	13.06	29-95
QOL:			
Overall QOL	3.21	.72	2-5
Overall health	3.15	.88	1-5
Physical	51.11	10.54	31-81
Psychological	54.16	12.43	19-81
Social	59.54	14.61	19-100
Environmental	54.87	10.80	31-88

Results of the correlational analysis, using Spearman Rank correlation coefficients, are presented in Table 2. The fatigue revealed a negatively and significantly associated with physical, psychological, social, and environment domain of QOL ($r = -.23$, $r = -.28$, $r = -.34$, $r = -.30$, $p < .05$, respectively). General health perception was positively and significantly associated with physical and environment domain of QOL ($r = .18$ and $r = .19$, $p < .05$), and social support was positively and significantly associated with physical, psychological, and social domain of QOL ($r = .20$, $r = .28$, and $r = .23$, $p < .05$, respectively).

Table 2: Correlations between fatigue, general health perception, social support, and QOL (n=119).

	QOL			
	Physical	Psychological	Social	Environmental
Fatigue	-.23*	-.28*	-.34*	-.30*
GHP	.18*	.18	.16	.19*
Social support	.20*	.28*	.23*	.07

* $p < .05$

5 DISCUSSION

This study attempted to examine the relationships between fatigue, general health perception (GHP), social support, and QOL among patients with cancer undergoing chemotherapy. In this section, the major findings are discussed.

The findings obtained from this study support the Revised Wilson and Cleary Model of HRQOL in that symptoms (fatigue), GHP, social support associated with QOL. The first finding was that the more severe of fatigue of patients with cancer undertaking chemotherapy, the lower their QOL in all domains. Fatigue is one of symptom cluster detected in patients with cancer. Fatigue in term of cancer disease defined as lack of energy. It is usually triggered by side effects related with chemotherapy during cancer treatment. Anaemia caused by bone marrow suppression can affect the deficit of energy in patients. Consequently, it might cause many physical, psychological, social effects that have an adverse impact on QOL (Arslan, Basbakkal, & Kantar, 2013). This finding is consistent with previous research by Lin and colleagues, who found that the fatigue was strong negatively correlated with patients with cancer's QOL (Lin, Chen, Yang, & Zhou, 2012). Blaney and colleagues reported that fatigue was a problematic symptom experienced with patients with cancer and it related with their health satisfaction (Blaney et al, 2013).

A second finding in the present investigation was that the higher GHP scores indicated the better QOL in term of physical and environmental domains. When a person has good perception about their health by considering many aspects, it will influence the OOL (Ferrans et al, 2005). In addition, in this study, majority of participants rated their perception about general health in tending to be high. It means that they had a good perception resulting they rated better QOL.

The present findings also show that the higher support received by patients with cancer undergoing chemotherapy, the better their QOL especially in physical, social, and environmental domains. It revealed that emotional, informational, and instrumental support given by family members are essential contributors to QOL in patients with cancer. There is wide agreement that the family is the main source of support in patients with chronic disease in particularly cancer disease in Indonesia (Lusiatun, Mudigdo, & Murti, 2016; Irawan, Hayati, & Purwaningsih, 2017), as it is in other countries (Nazik, Nazik, Ozdemir, & Soydan, 2014; Polanski et al, 2016; Kamaryati, N. P., & Malathum, P, 2020).

However, the findings found that GHP was not significantly associated with psychological and social domains of QOL. In line results show that social support was not significantly associated with environmental domain of QOL. The possible reasons are participants in the present study received support from their family member in this case their spouse. Most of participants were female and as housewife, they usually come to hospital for taking chemotherapy with their husband. Moreover, the other reason is patients in this study aware and accepted about their conditions. Cinar and colleagues pointed that when patients accepted what they lived through after being diagnosed cancer, they will realize how valuable their bodies and souls then they had to enjoy life (Cinar, Yildirim, Yesilbalkan, & Pamuk, 2018).

6 LIMITATIONS

The limitations of the study are this study did not include all variables from the model, it might affect the outcome. Also, it did not measure patient changes over time in every variable due to cross-sectional. In addition, this study used convenience sampling in only one public hospital in which restricts the generalisability of the findings.

7 CONCLUSIONS, RECOMMENDATIONS, AND NURSING IMPLICATIONS

The HRQOL of patients with cancer undertaking chemotherapy can be associated by several factors, such as fatigue, general health perception, social support. The findings proved the relationships among variables as stated in the Wilson and Cleary model.

Future research should be included all variables in the Revised Wilson and Cleary Model and find the best prediction from the model. Since the study was a cross-sectional design, it is needed to use longitudinal design. The findings suggested that nurses should consider severity of the fatigue during chemotherapy and patient's perception about their health in providing nursing care to enhance their HRQOL. Further family as main support should be involved in patient's treatment.

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Clients with Mechanical Ventilator in ICU Room Ulin General Hospital Banjarmasin

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Abstract:

Suction is a procedure of action in health services that affect the safety of the clients because suction aims to assist clients to fulfill the oxygen needs by helping to liberate the airway. This study aims to gain an overview of the nurse's experience of determining how to perform suction actions on clients with mechanical ventilators in the Intensive Care Unit (ICU). The method used in this research is qualitative method with phenomenology design. The data were collected by in-depth interviews on six participants who worked as nurses in the Intensive Care Unit (ICU) room. There are seven themes identified in this study: (1) the understanding of suction (2) the experience of suction (3) the suction complication (4) the pathophysiology of ventilator installation (5) the importance of adequate resource support (6) the nurse constraint in the suction implementation (7) the protection against nosocomial infections potential. From the results of this study, it is expected that the hospital can improve the support of nurses on their self-development and facilities in carrying out actions in accordance with the standards, in order to continue to gain skills and can update the latest health sciences to support the procedures performed in the Intensive Care Unit (ICU).

Keywords: Nurse Experience, Suction Action, Client Safety

1 INTRODUCTION

A mechanical ventilator device is one of the most important therapeutic devices for breathing, so a mechanical ventilator is one of the tools that is relatively often used in intensive care units. The main problem of clients with breathing apparatus or mechanical ventilator that often arises is the cleaning of the infective airway, one of the interventions for this problem is handling suction, but in the process of suction not only the mucus is sucked, the oxygen supply that enters breathing is also sucked, making it possible for instantaneous hypoxemia to occur which is characterized by a decrease in oxygen saturation (SpO₂).

Usually, respiratory failure initially affects the ability to take oxygen (referred to as oxygenase failure) or to remove carbon dioxide called ventilation failure. Finally, both functions stop when respiratory failure becomes quite severe. Acute Respiratory Failure (ARF) in critical clients is still associated with a mortality rate of between 40% and 65%.

Some cases of respiratory failure end with the provision of a mechanical ventilator, which aims to help or take over respiratory function. The risk of installing mechanical ventilators on clients who experience respiratory system disorders is something that must be faced in an effort to save one's life. If the ventilator can function with it, an artificial airway (artificial airway) must be installed with an endotracheal tube (ETT).

Clients who have an endotracheal tube (ETT) need to be monitored for hemodynamics before and after suctioning to get the body's response to the procedure given. Clients who are admitted to intensive care should be in a stable hemodynamic state, Van De Leur et al. (2003 in Irajpour, 2014) states that the inconvenience of suction action is related to the invasive suction method. There are two ways of suctioning technique that is done by using closed suction system and open suction system (Özden and Görgülü, 2015)

The qualifications of nursing staff working in the ICU must have adequate knowledge, have appropriate skills and have a commitment to time. Knowledge of nurses about slime suction or suction is very important for the implementation of slime

sucking action in critical situations so as to increase the success of nurses in handling clients in maintaining the effectiveness of the airway. This knowledge and skills determine the success of slime suctioning or suctioning. Knowledge of slime suction can be obtained through education, training, and experience while working (Paryanti, Haryati and Hartati, 2007)

Multidisciplinary integration in health services is very influential on the outcome of the services provided. One of the phenomena is about multidisciplinary services in the ICU with clients installed in Mechanical Ventilators. Given the importance of suction action interventions by nurses according to indications that must be immediately carried out in accordance with the standard operating procedures in the ICU Room (McConnell *et al.*, 2016)

The experience of nurses in determining how to do suction is very influential to see how during this time the nurse carried out the suction action, because the suction action can provide side effects such as a decrease in oxygen saturation > 5%. Most of the respondents experienced a significant decrease in oxygen saturation at the time of the suction of mucus endotracheal tube (ETT), which was diagnosed with diseases of the respiratory system. Complications that may arise from the action of sucking mucus, one of which is hypoxemia / hypoxia. This is reinforced by the study of (Maggiore *et al.*, 2013) about the side effects of mucus endotracheal tube (ETT) suction, one of which is a decrease in oxygen saturation of more than 5%. So that clients who suffer from respiratory system diseases will be very susceptible to a significant decrease in the value of oxygen saturation at the time of the mucus sucking action, which is very dangerous because it can cause respiratory failure.

Considering the importance of suction action, the action must be carried out according to the procedure so as not to cause other complications to the client, such as the lack of O2 supply in the cerebral which can have fatal consequences for the client, to be able to carry out suction actions according to the right procedures about suction procedures. The above phenomenon is important to know because the experience of each nurse is subjective and difficult to quantify. The experience of nurses in determining how to perform suction actions is very diverse and relates to the understanding of the nurse itself. This becomes very important to be explored in nurses so that they can provide an overview of how nurses experience in determining how to do suction actions. These

prompted researchers to conduct research on nurses' experience in determining how to perform suction actions on clients who installed mechanical ventilators in the ICU Room. The researcher hopes that nursing services to clients about suction actions and prevention of nosocomial infections will become more qualified.

2 METHODS

This study of the experience of nurses determines how to perform suction actions on clients who are installed mechanical ventilators in the ICU room at Ulin Hospital Banjarmasin. This study uses a qualitative research approach with phenomenological design. Phenomenology contributes to understanding the various behaviors, actions and ideas of each individual towards phenomena that exist through their perspectives that are known and accepted correctly (Afiyanti & Rachmawati, 2014).

Determination of participants in this study using purposive sampling technique. Participants numbered 6 people who worked as executive nurses in the ICU. The researcher collects data by means of in-depth interviews and field notes. In this study the analysis was carried out with structured and specific analysis methods including verbatim transcripts, verbatim transcript analysis and thematic analysis.

3 RESULTS

The participants in this study were nurses from the ICU room at Ulin Hospital Banjarmasin. Following is the table of characteristics of participants in this study:

Table 1 Characteristics of Participants

Category	P1	P2	P3	P4	P5	P6
Gender	L	L	L	L	P	L
Education	Ns	D3	Ns	Ns	Ns	D3

The description of nurses' experience in preventing decubitus in the ICU Ulin Hospital Banjarmasin includes: understanding of decubitus, understanding of decubitus prevention, decubitus prevention efforts by nurses, nurse constraints in preventing pressure sores, nurse expectations in preventing pressure sores and adequate resource support to optimize prevention of pressure sores.

3.1 Themes of Understanding about Suction

All participants in this study knew the purpose of the suction action on clients who installed mechanical ventilators, namely to remove secret or mucus to maintain the patency of the client's airway. Knowledge of nurses on the purpose of suction actions in this study can be classified between levels three to six, because in general during the interview participants had applied the knowledge gained by doing suction as an effort to save clients.

Suction is a procedure used to maintain the patency and cleanliness of the airway by removing secretions from the trachea, nose or mouth either from the natural airway (nose or mouth) or from the artificial airway. According to the American Association of Respiratory Care (AARC, 2010) suction is an action procedure that aims to maintain the patency of the airway by cleaning up the accumulation of pulmonary secretion mechanically and carrying out suction actions only when mucous secretions are found.

In the participant interview, it was also suggested that the indication of suction was a client with a decrease in consciousness attached to a mechanical ventilator, and usually a client with a respiratory system disease. Clients with respiratory system diseases are very susceptible to respiratory failure. Breath failure occurs when the exchange of oxygen to carbon dioxide in the lungs cannot maintain the rate of oxygen consumption (O₂) and the formation of carbon dioxide (CO₂) in the body's cells. In this case the participant added that with the client's condition, the role of mechanical ventilators as one of the tools for emergency breathing therapy is undoubtedly, so that mechanical ventilators are one of the tools that are relatively often used in intensive care units. The main problem of clients with breathing apparatus or mechanical ventilator that often arises is the cleaning of the ineffective airway, one of the interventions for this problem is the suction action.

Suction as an effort to save clients is also expressed by participants where there is a consequence if suction is not carried out, namely the occurrence of respiratory failure due to a secret that closes the respiratory tract. According to Wiyoto (2010), if the suction action is not carried out on clients with impaired airway clearance, the client will experience a shortage of O₂ supply (hypoxemia) and if the O₂ supply is not met within 4 minutes it can cause permanent brain damage. It can be concluded that all participants understand

about suction both the purpose and the indications of suction as an effort to save clients, because clients who experience respiratory system problems, especially chronic irritation of the respiratory tract which can cause an increase in the number of mucus-producing / mucus-producing goblet cells by therefore it is necessary to take suction of mucus or suction.

3.2 Theme of Experience Suctioning

From the results of the interview, participants revealed that the experience in carrying out suction actions had begun from seeing the senior or previous nurse who did it in the room when the participants first worked in the ICU Room. As for the way that nurses do in the implementation of suction in the room there are 2 (two), namely by open suction or by close suction. Participants suggested that the open suction technique requires a method by releasing the client from the ventilator, while the closed suction technique involves a sterile procedure, a closed catheter hose and one with a ventilator circuit that allows parts of suction through the artificial airway without releasing the client from the ventilator circuit, so the principle the procedure performed by closing suction is more sterile.

(Overend *et al.*, 2009) mentions in his research that there is no difference between open and closed suction associated with oxygenation. As for (Maggiore *et al.*, 2013) in his research showed that the method of suction with closed suction or closed suction can reduce the loss of suction process (hypoxemia such as hemodynamic changes and mucosal trauma).

3.3 Theme of Suction Complications

Participants revealed that the suction action can cause the client's oxygen to be attracted when the nurse is sucking. One of the complications that can occur is because the length of sucking time is carried out beyond the recommended time limit, resulting in the release of the client's oxygen along with the sucking process carried out. The suction procedure where the insertion of the hose in the client's respiratory tract also allows for excessive negative pressure and leads to atelectasis. In addition, the participants also revealed that when the rinsing procedure after suction is also at risk of aspiration, this occurs if the nurse does not focus on performing the procedure.

In Saskatoon Health Regional Authority (2010) said that, complications that might arise from the action of mucus sucking are hypoxemia / hypoxia. And strengthened by (Maggiore *et al.*, 2013) about the side effects of sucking on ETT mucus, one of which is a decrease in oxygen saturation of more than 5%. So that clients who suffer from respiratory diseases will be very susceptible to a significant decrease in the value of oxygen saturation at the time of the mucus sucking action.

It can be concluded that given that this suction action can cause harm, early awareness is needed, compliance to take action in accordance with the correct standard operating procedures (SOP) and good skills for health workers who will take such actions, especially for nurses, because without these things can have a bad impact on clients who are temporarily treated. One of them can decrease oxygen levels and if health workers / nurses are not sensitive to problems that arise can cause clients to experience respiratory failure even to death.

3.4 Pathophysiological Theme of Ventilator Installation

Participants revealed that in implementing the suction procedure changes in the balance of hemodynamics can occur to the client because it is an invasive action. In this case hemodynamics is a state of work function of a vital human organ such as lung and heart function.

Some cases of respiratory failure end with the provision of a mechanical ventilator that aims to help or take over respiratory function. The risk of installing mechanical ventilators on clients who experience respiratory system disorders is something that must be faced in an effort to save one's life. If the ventilator can function properly then an artificial airway must be installed with an endotracheal tube or tracheostomy.

The role of mechanical ventilators as one of the tools for acute respiratory therapy is no doubt, so that mechanical ventilators are one of the tools that are relatively often used in intensive care units. The main problem of clients with breathing apparatus or mechanical ventilator that often arises is the cleaning of the ineffective airway, one of the interventions for this problem is the suction action.

Hemodynamics greatly affects the oxygen carrying function in the body and involves heart function, so hemodynamic monitoring is needed in the implementation of suction actions. Hemodynamic monitoring is a measurement of pressure, flow and oxygenation in the cardiovascular

system. Both invasive and noninvasive hemodynamic measurements can be taken in the ICU.

3.5 Theme of the Importance of Adequate Resources

The first finding in this study was the HR development category. The participants revealed the importance of the training that nurses should get in relation to the procedure performed in the ICU, this was related to the competence of the ICU nurses themselves.

Primary ICU nurses are trained nurses who are certified basic life assistance and advanced life assistance. Secondary ICU nurses are nurses with a minimum of 50% of the total ICU nurses are ICU trained and certified nurses, while tertiary ICU nurses are 75% of the total ICU nurses are trained nurses.

The importance of support for close suction facilities was also revealed by the participants, where the suction method with close can minimize the risk of infection and indeed the standard client is installed a mechanical ventilator should use close suction. Regarding tool inventory policy causes limited use of closed suction.

The next finding in this study was the importance of reinforcement, namely the support of the reward system given to the implementing nurses. Some participants in this study revealed that the existence of services is one that increases the motivation of nurses at work.

(Trebbele *et al.*, 2014) state that gifts / rewards are given by organizations tailored to their abilities, skills, experience and performance. The results of the research of Hsu *et al.* (2015) in Taiwan concluded that reward systems affect nurse job satisfaction and strengthen organizational commitment with the aim of maintaining nurse skills. The results showed that there was a significant relationship between reward and work motivation of nurses, reward was the most related variable to nurse work motivation (Negussie Nebiat, 2012). Nurses who are valued for their competence will have high motivation in work.

3.6 Theme of Constraints for Nurses in the Implementation of Suction

The constraints found in this study include the limitations of the number and qualifications of nurses and the limitations of facilities. The first sub-theme of the limitations of the number and qualifications of nurses with unprofessional nurses 'behavioral categories revealed that nurses' behavior was a supporting factor (environment) because of statements from participants who stated that nurses were less aware of sterile procedures. This can form unexpected behavior. Professional behavior must also be reflected in nurses, because nurses are part of nursing who have professional characteristics.

Nursing as a profession has characteristics that include knowledge underlying skills to solve problems in nursing practice, providing services, education that meets standards, controlling standards of practice, being responsible and accountable for actions taken, lifelong careers and independent functions (Generous, 2013).

The next obstacle felt by participants was the lack of nurses in the ICU who were not balanced with the number of clients being treated. Nurses in the ICU care for around 2-5 clients in 1 service shift. This is not in accordance with the Decree of the Minister of Health of the Republic of Indonesia Number 1778 / MENKES / SK / XII / 2010 Concerning the Implementation of Intensive Service Guidelines stating that the ratio of nurses to clients using mechanical ventilation is 1: 1, while comparison of nurses with clients who do not use ventilation mechanics is 1: 2.

3.7 Theme Protection of potential nosocomial infections

Some participants say the biggest thing that is an obstacle in this case is the behavior of the nurse itself. He revealed that nurses often did not wash their hands at the beginning of the action due to the demands of the work that had to be done by immediately seeing the condition of the average client being critical.

The results of (Bhandari *et al.*, 2004) study on VAP Bundle Interventions in Prevention of Associated Pneumonia Ventilator (VAP) in Mechanically Ventilated Clients stated that the health personnel's action on compliance with hand washing which was the basic factor in preventing the occurrence of nosocomial infections was found to

indicate 43.4% nurses do not wash hands before touching the client.

Hand washing is important because hands are a way of transferring effective microorganisms, making health workers who often contact clients to spread microorganisms that commonly cause nosocomial infections. ICU clients are mainly installed invasive devices such as ventilators with easy suction actions for nosocomial infections, so the principles of sterility, use of tools and appropriate nursing actions need to be carried out in carrying out the procedure.

4 CONCLUSION

The resulting theme has answered the purpose of this research, namely how the description of the nurse's experience determines how to perform suction actions on the client who installed a mechanical ventilator in the ICU Room. In this study it was found that all participants understood the purpose of suctioning, indications of suctioning, suction complications to suctioning were efforts to save patients. The experience in doing suction actions has been started from seeing the senior or previous nurse who did it in the room when the participants first worked in the ICU and how the nurses performed in suction in the room there were 2 (two), namely by open suction close suction.

Nurses understand the pathophysiological changes that can occur from ventilator installation, so the importance of adequate resource support is highly expected by nurses in the ICU, such as training in caring for the ICU to improve knowledge and skills in performing action procedures, and supporting adequate facilities. The results of this study also reveal the need for qualification adjustments and the number of nurses with the needs of clients in the ICU, especially clients installed mechanical ventilators, because the workload of nurses will affect how procedures are performed on clients in terms of protection against potential nosocomial infections.

There are experiences of nurses who are not easy in carrying out suction actions in accordance with the procedure, namely the many obstacles in implementing the ICU standard of action and one of the most burdensome obstacles is the limited number and qualifications of nurses. But on the other hand, there is an important thing illustrated in this study, namely the magnitude of the expectations of nurses so that policies related to the availability of adequate resources support both in human resource support

and facilities and infrastructure so that they can change the behavior of unprofessional nurses.

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The standardized facility regulation policy for the ICU room is also very important to note, namely the need for adequate close suction facilities to increase comfort for clients and minimize the potential risk of nosocomial infections that can occur. Close suction is expected to be used on all clients treated in the ICU with a mechanical ventilator on the suction procedure, side by side with open suction which can be used in the oral suction procedure. The fulfillment of sufficient sterile glove or gloves is also very important in the ICU Room to support sterile action procedures carried out by nurses on clients who are cared for in intensive space.

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Analysis of Speed and Ease of Use of The Older Adults Mobility Detection Model Using Google Form by Posyandu Cadres in the Community

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Abstract:

Approximately 72.4% of the older adult in Indonesia having problems immobility which varies from a functional problem moving up to a total inability to move. Immobility tends to be easily found but often not recognized as a problem in the older adult. Older adult immobility detection efforts ranging from Posyandu services is indispensable to be able to identify the various problems of mobility in the older adult in the community. The study aimed to develop and analyze a model for older adult mobility detection in the community that can be used by cadres quickly and easily by using Google form as a tool. This research was conducted to test the mobility of older adult detection model in the form of paper and google form to the 30 volunteers who perform detection mobility problems on 60 older adult health centers located in the region of Serpong and Pondok Ranji. Based on the study, showed that the speed detection by using google form (10.60 minutes; SD: 2.634) than using the paper form (9:33 minute; SD: 1,988). The lack of exposure to use of google form as a media for collecting data on health problems in older adult by cadres resulted in the majority of respondents stating that the use of a paper- based detection model was easier than using the google form. Therefore, educating the cadres to be able to use technology as a tool that can simplify and speed up health services.

Keywords: Mobility Detection Model, Older Adults, Google Form

1. INTRODUCTION

The increased life expectancy of 70.5 years in 2015 to 77.1 years in 2050 resulted in the older adult population continues to increase in some countries in the world, including in Indonesia. The increase in the number of older adult people also has an impact on the increase in the dependency ratio between the productive age and the older adult themselves. In 2015, the dependency ratio between productive age and older adult was 100: 12.6. This figure is expected to rise to 100: 25.6 in 2050.

The increase in the number of dependences occurs because of a decrease in the body function in the older adult, which can cause various health problems in the older adult. One of the many

problems that occur in the older adult in Indonesia is a problem in the older adult mobility function. The problem of older adult mobility has reached 72.4% of the total older adult in Indonesia. Based on data from the WHO, the problems have an impact on the high number of falls in the older adult, which reached 28-35% per year at age 65 and age 70 years increases by 32-42%

The occurrence of mobility problems in the older adult is caused by a decrease in function and disorders of the musculoskeletal system like rheumatoid arthritis, osteoporosis, and osteoarthritis (Ingram, 2017). The problem of mobility also has a bad impact on the quality of life of the older adult. Older adult people who experience immobility tend to experience various other problems that might occur such as a decrease in self-confidence and a desire to live a better and more fulfilling life.

Based on data obtained from Serpong 1 Health Center, the number of older adult people in 2016 was 9870 older adult with a higher number of older adult women than older adult men. From the total number of older adult people, 80% of them have received health services. In order to improve the quality of life of the older adult and prevent an increase in degenerative disease of the older adult, the health center Serpong 1 held several senior programs, among others: the older adult gymnastics on every Friday morning and implementation Posyandu every month.

The number of health effects that occur from impaired mobility problems in older adult requires an effort to be able to detect accurately and quickly to prevent older adult falls on worse conditions. Posyandu service as the spearhead of primary services that are close to the community is one of the efforts that can be done. In order to improve the Posyandu service efforts, researchers are trying to develop a detection instrument of mobility problems experienced by the older adult. The detection instrument was made based on the concept of nursing assessment, older adult mobility scale and cards leading to the health of the older adult which are packaged in a google form-based instrument. This study aims to measure the speed and ease of use of detection instrument-based mobility problems in older adults google form that will be used by the cadres of Posyandu.

2. METHODS

The design of this study uses a mixed methods design with a sequential explanatory approach. The researcher will measure the time of use of the detection instrument in each cadre in detecting mobility problems in the older adult in the community. In addition to the observation process carried out by researchers on cadres who use the google form-based instrument, researchers will also make direct observations of cadres in detecting mobility problems using the conventional method.

The sample in this study were all cadres found in the six older adult posyandu in the Serpong 1 Community Health Center work area, which amounted to thirty cadres. In this study, each cadre will detect older adult mobility problems for each of the ten older adult people, which are divided into five older adult people carried out with Google form and five people with paper-based. In the next stage, the researcher will interview each cadre to be able to find out their opinions regarding their experiences using

both types of ways of detecting mobility in the older adult.

3. RESULT OF RESEARCH

Based on observations conducted by researchers of the implementation of mobility problems in older adult detection using google form showed that the average time needed by the cadres in detection was 10.6 minutes. The average time is also not much different from the speed of time that cadres use in detecting using paper-based instruments (see Table 1)

Table 1. The average time to detect older adult mobility

Variable	Mean	SD	Min	Max	95% CI
G-Form	10.60	2.634	6	16	9.62 - 11.58
Paper	9.33	1.988	6	14	8.59 - 10.08

Several factors greatly influence the speed of detection of problems of older adult mobility. The first factor is that the majority of cadres has not been exposed in depth with the media used, even if they are accustomed to using a smartphone. Even though smartphone users in Indonesia are one of the active users on social media (Wahyunanda KusumaPertiwi, 2018), but the exposure of cadres in using smartphone media as a detection medium is something new cadres feel. Another factor that is a problem faced by cadres using google form is the slow internet network connection used to access instruments. Based on data from the Ministry of Communication, Information and Technology of Indonesia, it shows that in the third quarter of 2017 4G network penetration in Indonesia only reached 21% and will continue to increase by 7.9% annually (Tegar Arief, 2018). In addition to network problems, another problem faced is the high internet quota that must be spent by cadres in accessing the necessary instruments. At present internet rates in Indonesia range from Rp. 50,000 to Rp. 65,000 for a 2 GB quota (Yoga Hastyadi Widiartanto, 2015).

Based on the results Analysis of the data carried out on the two types of instruments used to detect older adult mobility shows that there is no significant difference in speed between google form-based and paper-based instruments (see Table 2.). This result is influenced by the majority of cadres who feel that filling paper-based instruments is felt easier and simpler.

Table 2. The speed difference between older adult detection

Group	N	Mean rank	Asymp.sig
Google form	30	34.55	.069
Paper-based	30	26.45	

Based on research conducted by (Batubara, 2016) that the use of Google Form can increase time efficiency by 80% and save paper usage. Based on the results of interviews conducted to cadres who use the instrument, they found that the use of a paper-based instrument is easier perceived than using google form. The successful use of an internet-based information system is strongly influenced by the ease of factors and benefits received by the users of the system (Dalimunthe, Meflinda and Azmi, 2014).

The majority of cadres of users at the research location perceive that the use of paper-based instruments is easier to understand and follow. This is because so far, the cadres have provided services to the community using the method. In addition to the various problems facing the Internet network, the use of mobile media as a tool for detection is considered more difficult for them. In the opinion of users, the instruments used by using Google Form are more complicated than paper-based instruments. In paper-based instruments, cadres can see the overall components studied in the older adult before they detect the older adult. This they feel is very helpful for them to make it easier to ask or detect the older adult in question.

However, the cadres themselves have not realized that the use of electronic media such as smartphones can help speed the delivery of data that cadres must submit to the puskesmas. This effort can continue to be improved by training and guiding cadres to be able to utilize the use of electronic media so that the services provided can continue to increase and be provided more quickly.

The absence of differences and difficulties experienced by the cadres is more or less influenced by the characteristics of the cadres themselves, where the average age of cadres is 47 years with 40% of the level of Education being in junior high school. Also, from all the cadres, 40% of them are not used to using an android or smartphone.

4. CONCLUSION

Based on the results of the study showed that there were no significant differences in terms of speed between google form-based instruments and paper-based. The average shows that the speed of using

google form and paper-based instruments only experienced a time difference of 1.27 minutes. Based on the results of statistical tests show that the mean rank both have a difference of 8.1 with p-value .069. Based on these conclusions, the researcher suggests that to adopt the use of technology, education and guidance is needed for users of the use of internet media as a tool to detect health problems. Also, an instrument development effort is needed on an application model that can be easily operated by users, especially posyandu cadres.

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Student's Perception and Learning Experience About Interprofessional Education

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Abstract:

World Health Organization (WHO) has made a grand design on collaborative character building in a formal education in the form of interprofessional education. Interprofessional Education (IPE) is a learning implementation participated by two or more different profession to improve quality of collaboration and service and the implementation can be done in all learning stage academically or clinically (*World Health Organization, 2014*). There is a crucial need of learning model design of IPE that can build positive perception in health profession students. Student's condition that is very heterogenic brings up different perception and learning experience about IPE. It is important to be deeply explored as data and input of the upcoming IPE program. Objective of the research is to know the perception and learning experience of medical, nursing, and pharmacy students about IPE. This was a qualitative survey research with deep interview. It applied phenomenological qualitative approach. The data was analyzed by coding, categorizing, and deciding the theme of interview result. There were 12 IPE program participants from three different study programs, i.e. medical, nursing, and pharmacy as the respondents of this research. The interview result of three medical students shows 109 codes, 9 categories, and four themes. The interview result of five nursing students shows 141 codes, 19 categories, and four themes. The interview result of four pharmacy students shows 210 codes, 7 categories, and four themes. IPE participants' perception states IPE is important to be applied in academic stage and the implementation has strengths and weaknesses. While the learning experience states 1) IPE program is important in academic area with some strengths and weaknesses, 2) Nursing students can re-explain the proses of IPE learning from the beginning to the end in detail, 3) IPE experience encourages self-evaluation and motivation, and 4) after joining IPE learning program, nursing students experience some changes in knowledge, attitude, and skills.

Keywords: Perception, Learning experience, Interprofessional education

1 INTRODUCTION

Inter-health professional collaboration is one among other efforts to improve health service quality. *World Health Organization (WHO)* has made a grand design on collaborative character building in a formal education in the form of inter-professional education. Inter-professional Education (IPE) is a learning implementation participated by two or more different professions to improve quality of collaboration and service and the implementation can be done in all learning stage academically or clinically (*World Health Organization, 2014*).

Health care professional candidates from different backgrounds need to be given a chance to learn from each other. It is given in order to gain good understanding on each profession's competence so that they can create "ready to work together" collaboration where they can work together to provide comprehensive service with their competence in any series of health care service (*Murphy et al., 2018*).

Cooper et al., 2001 asserted IPE occurred during pre and post qualification education in any clinical setting (e.g., basic training program, post graduate program, sustainable professional development, and learning to increasing service quality). An effective IPE encourages respect among health care professionals, eliminates dangerous stereotypes, and raises patient centered ethics. The achievement of IPE goals is closely related to learning experience obtained from the students' learning process. The learning achievement that had been set up needed to be supported by the system, method and learning experience in its process.

The needs and facts discussed above are the reasons for educational institutions that are producing health care professionals, i.e. Medical Faculty of Universitas Kristen Duta Wacana (UKDW), Bachelor of Science in Nursing Study Program of Sekolah Tinggi Ilmu Kesehatan (STIKES) Bethesda Yakkum Yogyakarta, and Pharmacy Faculty of Sanata Dharma University,

to design IPE learning together. This program involves medical, nursing and pharmacy students that work and learn together to gain learning experience with other professions.

2 METHODS

This was a qualitative research with phenomenological approach. It was done in eight days in STIKES Bethesda Yakkum Yogyakarta, on September- October 2018. The population was all medical, nursing, and pharmacy students from three private educational institutions following IPE program during June-September 2018 as many as 78 students. The sample was 12 respondents taken with purposive sampling technique consisting three medical students, five nursing students, and four pharmacy students. A structured interview was done to explore the respondents' perception and learning experience about IPE and other things that could be done to improve IPE.

3 RESULTS AND DISCUSSION

The aim of this research is to explore the students' perception and learning experience about IPE and other things that could be done to improve IPE. The research was done on 28th September - 5th October with 12 participants. They consisted of three medical students, two males and one female students, they are 22 years old; five nursing students, four females and one male students, they are 21-22 years old; four pharmacy students, three female and one male students, they are 22 years old.

The result shows IPE has positive and negative impact. Though, IPE gives experience especially learning experience in terms of knowledge, attitude, and skills in participating IPE process. It makes all the reference to prepare them to work in hospital so that it improves students' style and mindset in doing their work in accordance with their portion and skill in providing health care service and also in collaborating with other health care professions.

It is supported by the theory saying that positive relationship and respect each other's role could be developed from an early stage. The development of IPE required the student's attitude and eagerness to work together. Communication skill in IPE was expected to provide positive impact to health care service in community by having mutual respect among health care professionals related to their respective professions. By having a good inter-professional collaboration in providing health care service, a client would be handled holistically so that the outcome of health care service and client's level of satisfaction would be improved. Decision making in the process of patient service could not be done only by one party of health care professional.

Health care service given to the patient in terms of the nursing care has to be in accordance with the diagnose done by doctor, also in prescribing medication, a doctor needs to collaborate with the pharmacist. Every profession has its own responsibility and must complete each other in providing health care service so that the service can be done holistically.

A good competence, skills, and profession autonomy from every professional could create a good perception to make the way of collaboration (Hammick *et al.*, 2007). Some factors influencing collaboration and its effectiveness were perception and understanding about their own health care profession and others' professions. IPE participants could learn to understand other professions during IPE learning process.

4 CONCLUSION

It can be concluded from the result of interview with 12 participants from three different study programs that IPE participants think that IPE is important to be applied in academic stage and that the implementation has strengths and weaknesses.

While the learning experience states 1) IPE program is important in academic area with some strengths and weaknesses, 2) Nursing students can re-explain the proses of IPE learning from the beginning to the end in detail, 3) IPE experience encourages self-evaluation and motivation, and 4) after joining IPE learning program, nursing students experience some changes in knowledge, attitude, and skills. Students from nursing, pharmacy and medical study program have their own responsibility in accordance with their profession's duties and authority.

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Qualitative Study of Post-Traumatic Stress Disorder (PTSD) Refugees of Pregnant Women in Mount Agung Eruption Disaster in Karangasem-Bali

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Abstract:

Natural disasters can occur anytime, anywhere. This phenomenon is happening in Bali, namely the eruption of Mount Agung that has entered the alert level. Natural disasters often cause psychological distress that can affect the mental health of victims who experience them. Post-traumatic stress, psychiatric disorders, and other psychosocial problems can be caused if not appropriately handled. This is often called Post-traumatic stress disorder (PTSD). The purpose of this research is to know in depth the post-traumatic stress disorder (PTSD) description of refugee pregnant women victims of the eruption of Mount Agung in Karangasem -Bali. The design of this study is qualitative. Qualitative data was collected through in-depth interviews with ten informants consisting of 5 primary informants (pregnant women displaced victims of the eruption of Mount Agung), five supporting informants composed of 2 leading informant families, 2 IDP officials and 1 IDP health volunteers at the refugee camp. The results of this study found that most informants had a pretty good life history in their place of origin. They used to do activities and homework without any physical or psychological interference. After being in the refugee camp, all the informants felt unpleasant feelings, and they felt fear and anxiety if later Mount Agung erupted. The informants, especially pregnant women, in addition to being anxious about the effects of the eruption of Mount Agung, were also anxious when thinking about the costs of giving birth, and the care of their children after birth, especially those related to nutrition and their place of residence. They hope that there is help from the government and all parties associated with this problem. This study concludes that pregnant women displaced victims of the Mount Agung eruption did experience trauma after the Mount Agung eruption disaster (PTSD), which was shown by the fear and anxiety of the impact that would be experienced and confusion when thinking about the cost of giving birth and child care.

Keywords: Refugee pregnant women, Mount Agung eruption, PTSD

1 INTRODUCTION

Natural disasters often cause psychological distress that can affect the mental health of victims who experience them. Post-traumatic stress, psychiatric disorders, and other psychosocial problems can be caused if not appropriately handle. Another thing that can be experienced by refugees is the loss of livelihood, separated by other family members, unable to continue their education and not to fulfil their proper clothing, food, and housing needs (Rusmiyati and Hikmawati, 2012). One of the natural disasters that often occur is a volcano erupting. This can be preceded by an earthquake that occurs not only once, but up to hundreds of times in a few hours has an adverse effect. Conditions that drag on without certainty and proper handling can cause mental disorders, especially after the victim experienced the event or known as Post-traumatic

stress disorder (PTSD phenomenon that is happening in Bali at this time is the eruption of Mount Agung that has entered the alert level. This also makes residents who are likely to be affected feel worried even though they have been evacuated to a safe area with assistance and assistance from all Balinese people. Support and donations in the form of clothing, food, shelter and facilities, and infrastructure continue to flow. Disaster mitigation also continues to be pursued. The situation and condition of the refugee camps continue to be improved. All levels of society work hand in hand to help victims of this disaster. For the time being, victims of this disaster may not feel worried about fulfilling their physical needs, but what about their physical fulfilment, especially in women who are pregnant. Ordinarily pregnant women will experience stress from mild to moderate levels in the refugee camps where pregnant women cannot meet

their food, clothing, shelter, and emotional needs optimally. This can harm the mother herself and the growth and development of the fetus it contains. This needs acute treatment from all parties so that there is no trauma after the disaster (PTSD). Based on this phenomenon, the authors are interested in conducting more in-depth research on post-traumatic stress disorder (PTSD) picture of refugee pregnant women victims of the eruption of Mount Agung in Karangasem-Bali. The purpose of this research is to know in depth the description of the incidence of post-traumatic stress disorder (PTSD) in refugee pregnant women victims of the eruption of Mount Agung in Karangasem-Bali. The results of this study are expected to be subject to study and data sources for related research and policyholders in further program planning.

2 METHODS

This study uses a qualitative research with an exploratory approach. Researchers try to find out more in cases that occur by listening to and making themes from the data obtained against people involved in certain situations. This study seeks to understand the picture of PTSD refugees of pregnant women victims of the eruption of Mount Agung deeply. Data were collected through in-depth interview techniques using open interview guidelines for 10 participants consisting of 5 pregnant women displaced victims of the Great Mount disaster, two leading informant families, two refugee officials, and one health volunteer at the shelter. Data analysis was performed by creating codes, categories, and central themes that were presented in the results section. Before interviews, the research participants were given information and sought approval to participate in the study. Participants are not given wages in return. Interviews were conducted at the evacuation site. Confidentiality of identity is done by changing the participant's name with a code that is only known by the researcher. The Ethics Committee approved this study of the Faculty of Medicine of Udayana University / Sanglah Hospital Denpasar. The researcher also requested permission from the Head of the Karangasem Regency Politics and Community Protection Agency (Kesbang Pol and Linmas).

3 RESULTS

The results of this study found that most of the informants had a reasonably good life history in their place of origin. They used to do activities and homework without any physical or psychological interference. After being in the refugee camp, all the informants felt unpleasant feelings, and they felt fear and anxiety if later Mount Agung erupted. The informants, especially pregnant women, in addition to being anxious about the effects of the eruption of Mount Agung, were also anxious when thinking about the costs of giving birth, and the care of their children after birth, especially those related to nutrition and their place of residence. They hope that there is help from the government and all parties associated with this problem. The results of this study were further grouped into three central themes, namely the first theme concerning the lives of pregnant women at their origin and in refugee camps, the second theme was the views of pregnant women towards the Agung Mountain disaster and the problems faced at the refugee camps, and the third theme was the expectation of mother's expectant while in a refugee camp.

Life of Pregnant Women in the Origin and Evacuation Sites

Most of the informants in this study did not have problems in carrying out daily life at the place where they used to do housework and do routine work as farmers and traders. At the refugee camp, these informants could only carry out activities such as helping to cook in public kitchens and other events at the shelter. As stated by this informant:

"In my place of residence in general everything can be obtained quite easily huh ... for the size of life in the village is not too difficult, I usually do homework in the morning, then go to trade ... in the afternoon go to the rice fields mowing the grass" (R002)

"... oh ... there we used to do activities such as planting flowers, gardening and doing other things, but now we can't anymore ... how can sometimes there be an earthquake and smog ... if we even plant it will be damaged, we will lose" (K001).

This is by what was conveyed by (Rusmiyati and Hikmawati, 2012) that things that could be experienced by refugees were loss of livelihoods, separated by other family members, unable to continue their education, and not to fulfil their proper clothing, food, and housing needs.

Views of Pregnant Women Against Mount Agung Disaster and Problems Faced at the Evacuation Site

All informants in this study felt that the eruption of Mount Agung was a severe problem and caused physical and physical issues. The informants often

feel scared and confused because the situation of Mount Agung is uncertain whether it is safe or will erupt soon. This disaster affected all order in their lives. They can no longer work at their own homes, losing their livelihoods. Their fields, fields, and livestock are not taken care of, so they are threatened to die, and they are prepared to lose. Their children must also take refuge and conduct educational activities in places close to refugee areas.

Moreover, pregnant women informants are very scared if Mount Agung erupts later. They do not know what the situation will be like. As stated by these informants.

"I do not know anything, he said, the mountain was about to erupt, I was confused remembering when I erupted a lot of ash, the earthquake was just scared of me. I was asked to evacuate, so I just joined." (K001) "The current situation is frightening and confused, the economy is plummeting, all citizens are hesitant about farming or raising all the misgivings" (P002)

These informants really wanted to go home, but they were afraid of an earthquake and if Mount Agung erupted suddenly they could not evacuate quickly especially in a condition of being pregnant. Therefore, they chose to stay in refugee camps. They also feel boredom and anxiety when remembering the situation in their home, where they used to work, but now they can only be quiet waiting in a shelter. The informants, especially those who are pregnant and want to give birth, often feel sad when they think about a few more days they will give birth. They think of the costs, proper housing for their babies, clothes, and other necessities. Most informants felt complaints psychologically, but only a few old complaints and disorders during pregnancy (Overend *et al.*, 2009). Of the seven pregnant women in the refugee camp, five were still pregnant, 1 had a miscarriage, and one had given birth. Pregnant women in these refugee camps routinely conduct health checks to the nearest *Puskesmas*. As stated by this informant.

"Mom, I want to be at home ... yes, here when it comes to food, moms, blankets, and there are also donated clothes from outside. But I think about where I want to give birth, and later I will live where all the families are here. I have no relatives outside of ma'am" (R001).

"...I'm afraid to going home restless, I could not sleep early here, but thankfully lately, it's a bit ordinary, but still afraid of the mountain suddenly erupts me how. I just resigned, right? There are usually those who tell me that the mountain is about

to erupt, so I stay here" I can't say anything, ma'am ... mixed up my feelings, fear, anxiety, especially thinking about how I want to give birth to the costs, how will I live where later with my baby." (R003)

Research conducted by Hotmaida *et al.* in 2007 showed that of the 43 respondents who experienced the tsunami disaster in Pangandaran village, 51.2% of respondents tended to experience PTSD, and 48.8% experienced PTSD. This is also experienced by refugee's victims of the eruption of Mount Agung from the statement of the informants it can be concluded that they are especially pregnant women experiencing trauma and fear of the impact that will be faced if Mount Agung erupts even though the informants can still overcome it by telling stories and expressing problems to others refugee friends and officers in the refugee camp. This is also consistent with the theory of general adaptation syndrome presented by Hans Selye (1907-1982), especially in the alarm reaction phase (warning reaction). In this phase, the body can cope with stressors (changes) properly. If there is fear or anxiety or worry that the body will secrete adrenaline, a hormone that speeds up catabolism to produce energy in preparation for the danger of snaking.

Expectations of Pregnant Women While Being in a place of Refuge

All informants in this study expect certainty about the status and condition of Mount Agung. If indeed Mount Agung has to erupt, hopefully, it will explode quickly. Still, if possible, probably, the situation can be better, and the level of Mount Agung drops to a safe level so that the refugees can return to their places of origin and live life as before. The informants of pregnant women hope that if indeed they must be in refugee camps so that there is financial assistance for childbirth and help with equipment and baby equipment as conveyed by these informants.

"If Mount Agung wants to erupt, let it explode, so there is certainty than this, it will be confused, but if possible, it will go down to a safe state." (R002)

"If possible, this situation will recover quickly. If there is help, I hope for the help of baby equipment and baby milk." (R004) "Yes, if there is relief in the cost of childbirth, however, we are in refugee camps. There is no income ma'am ..." (R005)

"The hope is that if Agung Agung wants to erupt, let it explode rather than what it is like now. Fear, confusion, economic downturn, farming, and raising doubts. Holy sacrifices have often done this in the crater of Mount Agung. Hopefully, all things will return to normal. If there is help, it is necessary to

have a health examination for pregnant women."
(P002)

"These people are affected by the disaster, especially for pregnant women who have been displaced so that there will be help with the cost of giving birth because starting this March, there has been a lot of assistance that has been reduced."
(P001)

4 DISCUSSION

Following the statement of article 8 of RI Law No. 24 of 2007 concerning disaster management, which emphasizes that the responsibility of local governments in the implementation of disaster management includes guaranteeing the fulfilment of the rights of people and refugees affected by disasters under minimum service standards. Protection of the community from the effects of disasters, disaster risk reduction, and integration of disaster risk reduction with development programs. The allocation of disaster management funds in the Regional Revenue and Expenditure Budget, which is adequate.

This research implies that efforts are still needed to address the ongoing eruption of Mount Agung. This must be carried out by all parties concerned as an effort to increase cooperation across programs, cross-sectoral both from the government and the private sector. The limitation of this study is the possibility of data not being reviewed due to recall bias and the difficulty of freeing from social values despite using in-depth interview guidelines given the interview situation and conditions in each different participant (Stansbury, Ried and Velozo, 2006). The lack of data and the results of research on PTSD conducted qualitatively also makes it difficult for writers to do more in-depth analysis so that more research is still needed.

5 CONCLUSIONS

In general, pregnant women displaced victims of the eruption of Mount Agung have a relatively good history of life at the place of origin. Although in a state of pregnancy, these pregnant women used to carry out activities and household chores as usual without significant disruption, both physically and mentally. Mount Agung Eruption Pregnant women displaced victims of Mount Agung eruption did experience trauma after the Mount Agung eruption

disaster (PTSD), which was indicated by a sense of fear and anxiety about the impact that would be experienced and confusion when thinking about the costs of giving birth and child care.

SUGGESTIONS AND THANKS

Suggestions are addressed to health centre health workers and local governments that shelter the Rendang area evacuation area so that they continue to carry out more intensive monitoring of all pregnant women in the refugee area and ensure that they can undergo pregnancy safely and deliver safely. Other researchers are expected to be able to carry out related studies given that this study has limitations by choosing other methods and adding research informants. On this occasion, the researcher would like to thank all those who have helped to carry out this research.

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The Effect of Abdominal Stretching Training on the Decrease of Dysmenorrhea on Teenage Girls in 1st Grade Senior High School SMAN 6 Denpasar

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Abstract:

Dysmenorrhea in adolescents can have an impact on activities and activities so that it can disrupt the teaching and learning process. This can be done with various alternative therapies, one of which is abdominal stretching therapy. This study aims to identify the effect of abdominal stretching exercises on decreasing Dysmenorrhea in 1st Grade SHS teenage girls at SMAN 6 Denpasar. This study used a Pre-Experimental design with One Group Pre-test Post-test, an intervention in the form of abdominal stretching with a time of 10-20 minutes to 20 students who experience Dysmenorrhea taken using total sampling techniques. Data were collected using the Faces Pain Scale-Revised (FPS-R) pain scale, and data were analysed using the Wilcoxon sign test. It shows that the significance value of p-value = 0,000 or 0.001 ($p < 0.05$), which means that significant abdominal stretching affects decreasing Dysmenorrhea in 1ST Grade SHS teenage girls at SMAN 6 Denpasar. Abdominal Stretching is recommended as an appropriate strategy for measuring the scale of pain towards reducing Dysmenorrhea in young women.

Keywords: Dysmenorrhea, Teenage Girls

1 INTRODUCTION

Reproductive health, according to WHO in Kemenkes (2010), is a condition that is whole, healthy, and prosperous physically, mentally, and socially, not only conditions that are free from disease but also free from disability in the process and function of the human reproductive system. Reproductive health for a woman is an essential component. Women have a reproductive system that is very susceptible to disorders that can cause problems in their reproductive health. Adolescent reproductive health is not only a sexual problem but also concerns about the menstrual phase in adolescents (Kusmiran, 2011). Menstrual disorders that commonly occur in women include *amenorrhoea*, *oligo menorrhoea*, *poly menorrhoea*, and Dysmenorrhea. Menstruation is periodic bleeding from the uterus that starts around 14 days after cyclic ovulation due to the release of the uterine endometrium, and this will be experienced every month by women (Sinaga et al., 2017). During menstruation, women's bodies will change, both as physical and physical changes before and during menses (Sinaga et al., 2017). Disorders that often

occur among teenagers during menstruation one of them is Dysmenorrhea or pain during menstruation (Arifiani, 2016). Dysmenorrhea occurs mainly in the lower abdomen and can spread to the lower back, waist, pelvis, upper thigh to calf. Abdominal cramps in Dysmenorrhea occur due to uterine muscle contractions that are very intense when bleeding menstrual blood. Very intense muscle contractions cause the muscles to tighten and cause cramps or pain. A natural chemical called prostaglandin causes primary dysmenorrhoea; the higher the prostaglandin, the stronger the muscle contraction will be so that the pain felt is also getting stronger.

Primary Dysmenorrhea is a normal process, but if left unchecked or not treated, the pain will get worse and can result in secondary Dysmenorrhea. Abnormalities or disorders of the reproductive system, such as fibroids, uterus, pelvic inflammation, endometriosis, or ectopic pregnancy, are called secondary Dysmenorrhea (Sinaga et al., 2017). The average prevalence of Dysmenorrhea in Asia is around 84.2%, with specifications (68.7%) occurring in Northeast Asia, (74.8%) in Middle East Asia, and (54.0%) in Asia Northwest. The prevalence in Southeast Asian countries is also

different, Malaysia estimates the number of women experiencing Dysmenorrhea is 69.4%, Thailand 84.2% and in Indonesia the incidence of Dysmenorrhea is 64.25%, comprising 54.89% of primary Dysmenorrhea and 9, 36% secondary Dysmenorrhea (Rustam, 2014). The phenomenon of Dysmenorrhea is seen in the community that there are still many adolescents who experience Dysmenorrhea and receive less attention in the world of health or nursing in overcoming the problem of Dysmenorrhea. Research conducted by Rustam (2014) found how to handle Dysmenorrhea by choosing the most sleep (70%), using betel leaves (67%), and using drugs (40%). The results of interviews with adolescents in 1st Grade SMAN 6 Denpasar found 104 girls who experience Dysmenorrhea.

Dysmenorrhea if left untreated, is a pathological disorder or disorder that can trigger an increase in mortality, including infertility, apart from the effects of emotional conflict, tension, and anxiety, all of which can cause uncomfortable feelings. Young women who experience a disruption in learning activities are caused due to menstrual pain felt in the teaching and learning process. The separation of the teaching and learning process makes it difficult for young women to concentrate because of the discomfort felt when menstrual pain and adolescent performance become poor. The magnitude of the impact resulting from the problem, and the lack of knowledge about handling Dysmenorrhea in adolescents, research is needed to find alternative therapies that are easy, safe, and do not require a lot of costs to reduce and overcome problems (Nurwana et al., 2017).

Dysmenorrhea can be treated with two therapies. Pharmacological therapy is a therapy by giving non-steroidal anti-inflammatory drugs (e.g., ibuprofen, naproxen, and mefenamic acid) non-steroidal anti-inflammatory medications will be very useful if taken two days before menstruation, if pain continues to be felt and interfere with daily activities, then given low-dose birth control pills containing estrogen and progesterone or given medroxyprogesterone. The administration of both drugs intends to prevent ovulation (release of eggs) and reduce the formation of prostaglandins, which will further reduce the severity of pain (Anurogo and Wulandari, 2011). Handling Dysmenorrhea non-pharmacological therapy can be done with relaxation techniques, warm water compresses, abdominal stretching, and acupuncture non-pharmacological therapy is safer therapy to use because it does not cause side effects such as drugs.

Abdominal stretching is non-pharmacological management that is safer to use because it uses a physiological process. Stretching exercises are effective in reducing pain in women who experience dysmenorrhea and are carried out for 10-15 minutes done for three times a week. Abdominal stretching exercises are specifically designed to increase muscle strength, muscle endurance, and flexibility so that it is expected to reduce menstrual pain.

Based on the description above, researchers are interested in resolving reproductive health problems related to the management of dysmenorrhea by using abdominal stretching interventions in 1st Grade SHS teenage girls at SMA Negeri 6 Denpasar.

2 METHODS

This study used a Pre-Experimental design with One Group Pre-test Post-test. This research was conducting at Senior High School SMAN 6 Denpasar in February - March 2019. The population in this study were students who experienced Dysmenorrhea. Intervention in the form of abdominal stretching with a time of 10-20 minutes to 20 students who experience Dysmenorrhea this study uses non-probability that is a total sampling. Data collection tools using the pain scale Faces Pain Scale-Revised (FPS-R), this tool has also been validated, and its reliability is based on research Li et al. (2007) (0,825) and have a test strength ($r = 0.71-0.99$) and the Wilcoxon sign test parametric test.

3 RESULTS

The results obtained in this study are as follows:

Table 1: Frequency distribution of pain scale categories before performing abdominal stretching.

Pain Scale	f	%
Mild	0	0 %
Moderate	15	75 %
Severe	5	25 %
Total	20	100%

Based on the above table, it can explain that the scale of pain before doing abdominal stretching to decrease Dysmenorrhea in 1st Grade teenage girls in SMA Negeri 6 Denpasar is moderate pain, as many as 15 respondents 75%.

Table 2: Frequency distribution of pain scale categories after performing abdominal stretching.

Pain Scale	f	%
Mild	14	70 %
Moderate	6	30 %
Severe	0	0 %
Total	20	100%

Based on table above, it can be explained that the scale of pain after doing abdominal stretching to decrease Dysmenorrhea in 1st Grade teenage girls in SMA Negeri 6 Denpasar is mild pain as many as 14 respondents 70%.

Table 3: Results of analysis of pain scale data before and after given abdominal stretching exercise against decreased dysmenorrhea.

Test of Normality			
Shapiro Wilk			
Score	Statistic	df	p-value
Pre-Test	0,802	20	0,001
Post Test	0,805	20	0,001

Based on the results of the Shapiro-Wilk test, the p-value obtain at 0.01, and the post-test obtain at p-value = 0.001 with data interpretation not normally distributed, that is, p-value <0.05. The results obtained p-value (p <0.05) so that the data are not normally distributed, then the technique to analyse the effect of Abdominal Stretching Exercise on Decreased Dysmenorrhea in 1ST Grade Girls in SMA N 6 Denpasar is processed using statistical tests or normality test Nonparametric namely Wilcoxon.

Table 4: Results of data analysis of pain scale before and after given abdominal stretching exercise against decreased dysmenorrhea.

Uji Wilcoxon Sign Test	
p-value	0,000

Based on the data above, after the Wilcoxon Sign Test was conducted, it showed that all respondents had a functional decrease in pain scale after being given an intervention. Wilcoxon test results show that the significant value of p-value = 0,000 <a 0.05, which means Ha is accepted so that it can be concluded that there is an effect after being given abdominal stretching exercises on decreasing dysmenorrhea in 1st Grade in SMA N 6 Denpasar.

4 DISCUSSION

4.1 Dysmenorrhea Before Being Given Abdominal Stretching

Based on the results of the study, found that of the 20 respondents before given abdominal stretching exercises who feel the scale of pain is the medium pain scale as much as 75%, and some others think a high pain scale before being given abdominal stretching exercises. Uterine muscle spasms cause adolescents who experience Dysmenorrhea (menstrual pain), dysmenorrhea is an abnormal condition that occurs in menstruating women, dysmenorrhea can influence by physical and psychological factors such as the stress influence of the hormone prostaglandin. During dysmenorrhea, uterine muscle contractions occur due to an increase in prostaglandins, which causes vasospasm of uterine arterioles, which causes ischemia, endometrial disintegration, bleeding and ram in the lower abdomen which stimulates menstrual pain (Siahaan et al., 2012, Sinaga et al., 2017). Regarding the decrease in the level of Dysmenorrhea in unpaid nursing students by using yoga interventions stated that the results of the study of Dysmenorrhea before yoga 50% of respondents experienced dysmenorrhea with moderate pain category and 10% were in the type of intolerable severe pain. This is caused by the increased expenditure of prostaglandins, which are influenced by the hormone progesterone, causing uterine hyperactivity. If prostaglandins are released in excessive amounts into the bloodstream, in addition to dysmenorrhea, other common effects such as diarrhoea, nausea, vomiting occur. The difference in this study is that the interventions given are abdominal stretching, while the research of Siahaan et al. (2012) delivered responses is yoga. Meanwhile, abdominal stretching itself is not much different from yoga, which can help increase muscle strength, muscle endurance, and muscle flexibility, can improve fitness, reduce muscle tension (cramps) and reduce pain during menstruation

4.2 Dysmenorrhea After Being Given Abdominal Stretching

Based on the results of the study found that the decrease in the pain scale of respondents after being

given abdominal stretching exercises by 70% which classified as feeling mild pain, and (30%) classified as feeling moderate pain. This shows that the majority of respondents were categorized as feeling mild pain scale.

Sports is a non-pharmacological treatment that is safer to use because it uses a physiological process. Sports or physical exercise can produce endorphin hormones, and this hormone can function as a natural medicine that is provided by the brain that gives birth to a sense of comfort and to reduce pain during contractions, one of the sports that can reduce the intensity pain is abdominal stretching exercise done one week before menstruation by three times to increase muscle strength, muscle endurance, and muscle flexibility can increase fitness, reduce muscle tension (cramps) and reduce pain during menstruation.

The results of this study can be concluded that after doing abdominal stretching shows that the pain level of the respondents decreased. At the time before being given abdominal stretching exercises, respondents experienced Dysmenorrhea with the category of moderate pain - severe pain, whereas after being given abdominal stretching exercises categorized as mild pain - moderate pain.

This is consistent with the Gate Control theory put forward by Wall that the pain implant is delivered when a defence is opened, and the impulse is inhibited when the case is closed. Efforts to close the defence is the basis of therapy for pain relief. This blocking can be done through distracting or relaxation measures. Abdominal stretching exercise is one of the relaxation measures that can reduce pain by relaxing the skeletal muscles that experience spasm caused by an increase in prostaglandins so that vasodilation occurs in the blood vessels and will increase blood flow to the blood that experiences spasm and ischemia (Siahaan et al., 2012).

4.3 Effects of Abdominal Stretching Exercise on Decreased Dysmenorrhea

Based on the results of the Wilcoxon test to analyse the impact of Abdominal Stretching exercises on decreasing Dysmenorrhea, the value of $p = 0.000$ ($p < 0.05$), which means H_a is accepted, so there is the effect of abdominal stretching exercises on decreasing Dysmenorrhea.

The research method used was pre-experimental design with the one group pre-test-post-test, which is to assess the scale of pain before the intervention of

abdominal stretching (pre-test) and after the invasion of abdominal stretching (post-test).

Abdominal stretching is a non-pharmacological management that is safer to use because it uses physiological processes that focus on the stomach, the benefits of abdominal stretching are to reduce muscle pain and muscle tension, improve mental and physical relaxation, reduce the risk of muscle injury (cramps), reduce pain during menstruation (Dysmenorrhea), produces the endorphin hormone that functions as a natural sedative produced by the brain so that it causes a sense of comfort (Arifiani, 2016).

Women who exercise regularly can increase the number and size of blood vessels, which deliver blood throughout the body, including the reproductive organs, so that blood flow becomes smooth, and this can reduce the symptoms of dysmenorrhea. Increasing the volume of blood flowing throughout the body, including the reproductive organs, can facilitate the supply of oxygen to blood vessels undergoing vasoconstriction so that menstrual pain can be reduced. Abdominal stretching exercise itself is not much different from gymnastics, which can help increase oxygenation or oxygen and carbohydrate exchange processes in cells so that it can increase muscle strength, muscle endurance, and muscle flexibility can increase fitness, reduce muscle tension (cramps) and reduce pain in during menstruation.

The results of this study prove that there is a significant influence on the reduction of dysmenorrhea before and after being given abdominal stretching exercises. This is in line with research, according to (Arifiani, 2016), that the relaxation technique therapy is proven effective as a decrease in dysmenorrhea.

5 CONCLUSIONS

The results showed that before being given abdominal stretching exercises that feel the most pain scale that is on the moderate pain scale 75%. The decrease in the pain scale of respondents regarding the Dysmenorrhea pain scale after being given abdominal stretching exercises mostly felt a mild pain scale of 70%. The pain scale of respondents from moderate to mild is caused by respondents who were enthusiastic about taking abdominal stretching exercises well and listened to any information provided. To obtain significant results with a p-value of 0,000 or 0.001 p-value < 0.05 , there is an influence of abdominal stretching

on the decline in dysmenorrhea in 1st Grade teenage girls at SMA N 6 Denpasar.

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The Effect of Psychoeducation towards Family Response about Empowering People with Mental Disorders

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Abstract:

Families who have mental illness family members in Pedungan, South Denpasar do not fully understand the handling of people with mental illness, so providing information through psychoeducation is needed to improve family responses in empowerment. This study aims to identify the effect of psychoeducation on family responses about empowering people with mental disorders in the Rai-Manggis shelter. This study used a Pre-Experimental design with One Group Pretest Posttest, interventions in the form of psychoeducation were summarized in five sessions with 120 minutes to 20 ODGJ families taken using a total sampling technique. Data were collected using response questionnaires developed by researchers, and data were analysed using paired t-tests. Among 20 respondents, 45% had a high school education; the majority of respondents aged 36-45 years were 30%. Research Results p-value of 0.001 <0.05, which means that psychoeducation has high potential but requires further research. Psychoeducation can change the response of the family in supporting rehabilitation activities in halfway houses or at the empowerment centre, and psychoeducation can be used as an appropriate alternative intervention for the family. Health practitioners are advised to continue psychoeducation on the empowerment of ODGJ to be more productive in the community.

Keywords: family response, psychoeducation, mental disorders, empowerment

1 INTRODUCTION

Mental disorders are mental disorders that affect a person's psychology, physical, and behavior. Although the mental disorder is not considered as a disorder that causes death directly, the severity of the mental disorder in the sense of inability or powerlessness both individually and in society will hamper the development of the nation and state because they are unproductive and inefficient (Rahayuni et al, 2013). The number of people with mental disorders in Indonesia currently is 236 million people, with the category of mild mental disorders 6% of the population and 0.17% suffer from severe mental disorders, 14.3% of them *pasung* experience. More than 80% of the disease is experienced by people who live in low and middle-income countries.

The number of severe mental disorders or psychosis or schizophrenia in 2018 in Indonesia which has the largest mental disorders, among others, first is the Province of Bali (11 per mile), then second in the Special Region of Yogyakarta (10 per mile), third in West Nusa Tenggara (10 per mile), and Aceh's fourth position (9 Per mile) on

mental disorders that do not get subscriptions by families to the people in the city of Denpasar increased by 498 and who experienced depression by 25 people, based on data obtained from the Denpasar City Health Office, 2017. Utilization of *Puskemas* facilities so far is only for obtaining medicine. The community or families do not yet know that in *Puskemas*, providing shelter facilities to empower people with mental disorders (ODGJ) (Rahayuni et al, 2013). Providing psychoeducation to families and the community is very important to be done early to prevent and prevent recurrence in people with mental disorders (ODGJ), but this has not been done fully in the community.

This can be seen from the lack of use of health facilities related to mental health used. For example, in the city of Denpasar, which is the capital of the Province of Bali, there is one shelter for ODGJ, the Rai-Manggis shelter, which is a place of rehabilitation for ODGJ located in Pedungan Village. The facility is not yet fully used because of the lack of community understanding of the empowerment of people with mental disorders (ODGJ). The results of interviews with ten community members who have family members of people with mental disorders (ODGJ) in the city of

Denpasar, 7 of whom said they had not visited the halfway house because they had already gone to the health centre, but medication alone was not enough and therefore the need for activities that would benefit themselves, so families who do not yet know or lack information about alternative treatments such as open houses are only able to take people with mental disorders to seek treatment at the *Puskemas*.

2 METHODS

This study uses a pre-experimental design with one group pre-test-post-test. The population in this study are families who have family members with mental disorders. The number of samples is 20 respondents. Sampling was carried out at the Rai-Manggis shelter in April 2019. this study used a non-probability that is total sampling. Data collection tools using response questionnaires with a Likert scale. The questionnaire used in this study serves to measure family responses before and after being given psychoeducation and developed by researchers with face validity test by two lecturers who are experts in the field of mental. Likert scale questionnaire consisting of 15 statements with four answer choices, namely strongly agree, agree, disagree, and strongly disagree. The data were processed using the parametric test, dependent t-test

3 RESULTS

Table 1: Frequency distribution of respondent characteristics based on age, sex, level of education and occupation

Response	Frequency	Percent
Low	2	10
Middle	18	90
High	0	0
Total	20	100

Based on the table above it can be explained that the response of the family or the response of the respondent towards the empowerment of people with mental disorders (ODGJ) most are moderate (90%) of respondents.

Table 2: Frequency Distribution of Family Responses Before being given Psychoeducation

Characteristics	Frequency (f)	Percent (%)
Age (year)		
26-35	4	20
36-45	6	30
46-55	4	20
>55	6	30
Sex		
Male	10	50
Female	10	50
Education Background		
ES	5	25
JHS	3	15
SHS	9	45
Diploma	1	5
Bachelor	1	5
No school	1	5
Job Status		
Private	7	35
Labours	3	15
Entrepreneur	6	30
Others	4	20

Based on the above table, it is known that as many as 30% of respondents aged 36-45 years and > 55 years, based on gender characteristics, the number of men and women are equal, i.e., 50% of respondents. Based on the most recent senior high school, 45% of respondents were the most educated. Judging from work, the number of respondents who work as private companies 35% of respondents are the most types of work.

Based on the table below, it is explained that the family response or response of respondents towards the empowerment of people with mental disorders (ODGJ) is the highest (95%) of respondents.

Table 3: Distribution of family responses after giving Psychoeducation

Response	Frequency (f)	Percent (%)
Low	0	0
Middle	1	5
High	19	95
Total	20	100

The results of data analysis are normally distributed, using parametric test t-test shows that a p-value = 0,000 or 0.001 (p <0.05) is obtained,

which means H_a is accepted so that it can be interpreted that there is an effect of psychoeducation on family responses about empowering ODGJ in the Rai-Manggis shelter.

Based on the results of the Shapiro-Wilk test, the pre-test was obtained p-value 0.622 and the post-test was obtained p-value = 0.288 with the interpretation of normally distributed data that is p-value > 0.05.

4 DISCUSSION

Family response before being given psychoeducation

Based on the results of the study it was found that of the 20 respondents who had family responses about ODGJ empowerment before being given family psychoeducation most of the family responses had moderate responses about empowering ODGJ in the Rai-Manggis shelter, had a moderate response as much as 90% of respondents and some had a response low before being given family psychoeducation, this shows that so far it has not involved the family as a support system, only in this case it is only being transported by a mental health care called K3J so that this results in families who have family members with mental disorders who do not know how to teach true socialization.

Family response after being given psychoeducation

Based on the results of the study it was found that there was an increase in family responses after being given family psychoeducation therapy, most of the categorized respondents had high responses, this shows that most of the family responses were categorized as high as 95% of respondents. Increasing family responses are several factors, namely cognitive abilities, affective abilities, and conative abilities, in addition to the need for family support, family motivation, family behavior, and family perceptions can change negative family responses into positive things this can occur due to the process of providing psychoeducation (Stansbury, Ried and Velozo, 2006).

Psychoeducation in this study was given for 120 minutes with five sessions on empowering people with mental disorders (ODGJ) already structured, namely starting from Session one. In this session, the family is more dominantly closed to reveal the problems experienced by family members who experience mental disorders.

Session two in this session the family is active in discussing with fellow families whose family

members have mental illnesses and asking the material providers on how to care for clients with mental disorders in open houses and open houses to provide useful facilities or as an alternative treatment, session three namely sessions this family is more open to the problem because they begin to know more about what to do if the patient is quickly controlled in addition to the puskesmas, session four in this session the family is free to ask anything related to the problem of caring for people with mental disorders at home to ask family feelings after finishing following family psychoeducation activities and provide positive feedback on the good cooperation of participants and session five visits to the halfway house in this session the family can practice abstinence cutting tools that have been provided at the halfway house to know the device is safe for family members who are mental disorder.

Bhandesa (2018) also conducted the results of this study, entitled PKM mental health care groups in *Banjar Puseh* and *Banjar Karang Suwung Pedungan* villages - pedungan sub-districts of south denpasar sub-district of Madya city Denpasar - Bali also obtained significant results of this PKM program can run 100 percent well in the activities of forming and training mental health cadre groups (K3J).

The results of this study are in line with the results of research conducted by (Sulistyowati, KNi *et al.*, 2015) entitled Empowering families through health education in caring for family members who have mental disorders where the results are the ability or response of the family increases after being given health education about how to care for mental disorders family.

The Effects of Psychoeducation on Family Responses

Based on the results of this study indicate that there is an influence of psychoeducation on family responses about empowering people with mental disorders (ODGJ) in Rai-Manggis shelter with a p-value of 0,000 or 0.001 $p < 0.05$, this is also supported by the implementation of interventions carried out by speakers who are certified and already experts. Psychoeducation provided in a structured manner with five psychoeducation sessions is indispensable in the care of clients with mental disorders because it can reduce the occurrence of recurrence in clients with mental disorders, improving client and family functions can facilitate clients returning to the family and community by giving appreciation for social and occupational functions clients with mental disorders

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Nutritional Status of Nursing Graduate Students through Measurement of the Body Mass Index (BMI)

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Abstract:

Normal nutritional status is needed to support daily activities, but still found abnormal nutritional status (underweight, overweight and obesity), especially in adults. This study aims to identify the description of the nutritional status of level III students of ITEKES Bali Nursing Undergraduate Program through measurement of body mass index (BMI). This research used a cross-sectional descriptive design study and was conducted from February 1 to March 1, 2019, at ITEKES BALI Campus II. The population in this study were all level 3 students of ITEKES Bali Nursing Undergraduate Program. The sample in this study amounted to 239 respondents taken using total sampling techniques. The research method used is the observation method with data collection tools used in the form of observation sheets, scales, microtome, calculators and stationery. Analysis of the data used in univariate analysis. Based on the results of the study, obtained the results of the nutritional status in the category of underweight by eight respondents (3.3%), mild underweight 22 respondents (9.3%), normal weight category 180 respondents (71.1%), overweight 18 respondents (7.5%) and obesity categories as many as 21 respondents (8.8%). Nutritional status of level III ITEKES Bali Nursing Undergraduate Program is mostly in the normal category, but there are still third-level students with underweight, overweight or obese nutritional status. It is recommended for students who experience poor nutritional status to be able to apply healthy lifestyles, such as healthy food consumption patterns and adequate activities.

Keywords: Nutrition Status, Body Mass Index, Nursing Students

1 INTRODUCTION

Health problems are problems that are possessed by every country both developed and developing countries such as the problem of fulfilling nutrition and being overweight. The intake of unbalanced nutritional needs and adequacy can lead to nutritional problems, both in the form of malnutrition and over nutrition problems. Nutrient intake and energy expended must be in a balanced state. Otherwise, this can lead to weight gain, and vice versa, if the energy expended is greater than nutrient intake will cause malnutrition (Mardalena, 2017). Unbalanced nutritional intake can have an indirect impact on body mass index (BMI).

BMI is used to assess the nutritional status of a person in the categories of underweight, normal weight, overweight and obesity which is done by measuring weight (in kilograms) and height (in meters), then the results of measurements of body weight (in kilograms) divided by height (in meters) squared (Smeltzer and Bare, 2013). Factors that can

affect BMI are gender, age, genetics, diet, daily activities (Asil *et al.*, 2014).

Underweight nutritional status is caused by lack of energy intake, while overweight and obesity nutritional status can be caused by energy intake that is higher than the energy expended by the body. Overweight and obesity can trigger various diseases, one of which is cardiovascular disease which includes stroke, hypertension, diabetes mellitus type 2. Three factors cause obesity, namely physiological, psychological and accident factors (Mardalena, 2017). Overweight and obesity has now become a global problem as well as experienced by developed and developing countries such as Japan and Indonesia. The prevalence of overweight in developed countries such as Japan reached 23.2% and 66.3% in the United States, while overweight in developing countries such as Indonesia reached 13.4% and in Saudi Arabia reached 72.5%. The prevalence of obesity in developed countries like Japan is 3.1% and 32.2% in the United States, while obesity in developing countries such as Indonesia

reaches 2.4% and 35.6% in Saudi Arabia (Low, Chew Chin and Deurenberg-Yap, 2009). The prevalence of obesity for men and women (> 18 years) in Indonesia from 2007, 2010 to 2013 continues to increase. In the adult male population, obesity in 2013 reached 19.7%, which is greater than the prevalence in 2007 (13.9%) and 2010 (7.8%). In 2013 the highest obesity prevalence was in North Sulawesi province, which was 34.7%, and the lowest obesity prevalence was in East Nusa Tenggara, which was 9.8%. Obese adult women in 2013 reached 32.9% where this data is greater than the prevalence in 2007 (13.9%) and 2010 (15.5%). The highest obesity prevalence is in North Sulawesi province, which is 19.5%, and the lowest obesity prevalence is in East Nusa Tenggara, which is 5.6% (Kementerian Kesehatan Republik Indonesia, 2013).

The prevalence of overweight and obesity in the adult population based on BMI category in the province of Bali reached 28.73% with the highest prevalence of overweight and obesity in the Badung Regency. Overweight prevalence in Badung Regency reached 16.0%, and obesity prevalence reached 22.6%. The lowest prevalence of overweight and obesity is in Karangasem Regency with overweight prevalence reaching 8.7% and obesity prevalence, reaching 10.4% (Kementerian Kesehatan Republik Indonesia, 2013).

Nutritional status in adults within normal limits is needed to support daily activities, but the nutritional status in adults is currently above normal (overweight and obese) is still high. This is evidenced by the results of research conducted by Tandean, Mewo, and Wowor (2018) conducted at the Sam Ratulangi School of Medicine Manado, stating that of the 20 respondents studied, the prevalence of obesity (60%) was far higher than the prevalence of normal body weight (15 %) (Tandean, Mewo and Wowor, 2018). This research is inversely proportional to the results of research conducted by Sugiritama *et al.* (2015) in Banjar Demulih, Susut Subdistrict, Bangli Regency which states that of the 108 sample respondents surveyed, the prevalence of respondents with normal weight (48%) was higher than the prevalence of overweight (18%) and obesity (22%) (Sugiritama *et al.*, 2015).

The impact that can arise if a person's body mass index is above normal (overweight and obesity) is a health problem one of which is cardiovascular disease, hypertension, type 2 diabetes mellitus (Jahri, 2016).

Research conducted by the Ministry of Health (2013) in Bali, found that in Denpasar the prevalence of overweight and obesity in adults (> 18

years) reached 14.8% (overweight) and 17.6% (obesity). According to the education level of the respondents, the highest prevalence of overweight and obesity at the tertiary level reached 15.3% (overweight) and 19.6% (obesity) (Kementerian Kesehatan Republik Indonesia, 2013).

This is the background of researchers to research the description of the nutritional status of students in the third level of ITEKES Bali Nursing Undergraduate Program through measurement of body mass index (BMI).

2 METHODS

The research design used in this study is a descriptive cross-sectional study. The population in this study were all level III students of ITEKES Bali Nursing Undergraduate Program. The sample in this study amounted to 239 respondents taken using total sampling techniques. This research was conducted at ITEKES BALI Campus II on February 1, 2019 - March 1, 2019. The research method used was the observation method with data collection tools used in the form of observation sheets, scales, microtome, calculators and stationery. Analysis of the data used in univariate analysis.

Before collecting data, researchers first explain the intentions and objectives of researchers to prospective respondents. Prospective respondents who are willing to become respondents must fill out an informed consent form. After the respondent signs the informed consent sheet, the researcher measures the height and weight of the respondent, then the researcher checks the completeness of the data on the observation sheet and performs data processing using univariate data analysis with the SPSS 20 application for windows.

3 RESULTS

Based on the results of research on the description of the nutritional status of third-degree students in ITEKES Bali Nursing Undergraduate Program through measurement of body mass index (BMI) that has been conducted at Campus II ITEKES BALI with 239 respondents.

Table 1. Percentage of Frequency Characteristics of Respondents by Age and Gender at ITEKES BALI (n = 239)

Characteristic	n	(%)
Age (Year)		
19	1	0,4
20	124	51,9
21	103	43,1
22	11	4,6
Sex		
Male	46	19,2
Female	193	80,8

Based on the table above, it can be explained that of the 239 respondents, the most respondents at the age of 20 years were 124 respondents (51.9%), and the frequency of female gender respondents was greater than men, which was 193 respondents (80.8%).

Table 2. Percentage of Frequency Weight of Level III Students of ITEKES Bali Nursing Undergraduate Program (n = 239)

Weight	n	%
21 – 30	1	0,4
31 – 40	7	2,9
41 – 50	66	27,5
51 – 60	106	44,4
61 – 70	29	12,3
71 – 80	25	10,5
81 – 90	4	1,6
91 – 100	1	0,4

Based on table 2 shows that of the 239 respondents, the highest weight of Level III Undergraduate Nursing Study Program in ITEKES BALI was in the range of 51 kg - 60 kg with a frequency of 106 respondents (44.4%), whereas weight with the lowest frequency in the range 21 kg - 30 kg and the highest in the range of 91 kg - 100 kg with each frequency is one respondent (0.4%).

Table 3. High-Frequency Percentage of Level III Students of ITEKES Bali Nursing Undergraduate Program (n = 239)

Height	n	%
141 – 150	6	2,5
151 – 160	120	50,3
161 – 170	100	41,8
171 – 180	13	5,4

Based on table 3 shows that of the 239 respondents, the height of Level III Students of Nursing Bachelor Program in ITEKES BALI is highest in the range of 151 cm - 160 cm with a frequency of 120 respondents (50.3%) and the lowest height range is 141 cm - 150 cm with a frequency of 6 respondents (2.5%)

Table 4. Percentage of Frequency of Nutrition Status for Level III Students of ITEKES Bali Nursing Undergraduate Program based on Male (n = 46) and Female (n = 193)

Category Nutrition Status	n	%
Male		
Light Underweight	2	4,3
Normal	29	63,1
Overweight	8	17,4
Obesity	7	15,2
Female		
High Underweight	8	4,1
Light Underweight	20	10,4
Normal	141	73,1
Overweight	10	5,1
Obesity	14	7,3

Based on table 4 shows that of the 239 respondents, the frequency of nutritional status of Level III Undergraduate Students in ITEKES Bali Nursing Undergraduate Program consisted of 46 male respondents (19.2%) and 193 female respondents (80.8%). Based on the table above, the results obtained in male respondents are in the category of mild underweight as many as two respondents (4.3%), normal weight categories as many as 29 respondents (63.1%), overweight as many as eight respondents (17.4%) and the obesity category as many as seven respondents (15.2%). While the respondents with the female gender obtained results that are as many as eight respondents (4.1%) with the category of heavy underweight, 20 respondents (10.4%) with the category of mild underweight, 141 respondents (73.1%) with the weight category normal body, ten respondents (5.1%) with overweight category and with obesity category that is 14 respondents (7.3%).

Table 5. Percentage of Frequency of Nutritional Status of Level III Students of ITEKES Bali Nursing Undergraduate Program (n = 239)

Category Nutrition Status	n	%
High Underweight	8	3,3
Light Underweight	22	9,3
Normal	170	71,1
Overweight	18	7,5
Obesity	21	8,8

Based on table 5 shows that of the 239 respondents, the frequency of nutritional status of Level III Undergraduate Students in Nursing Study Program in ITEKES BALI is in the underweight category with eight respondents (3.3%), mild underweight 22 respondents (9.3%), the normal weight category were 170 respondents (71.1%), overweight were 18 respondents (7.5%) and the obesity category was 21 respondents (8.8%).

4 DISCUSSION

4.1 Overview of Weight of Level III Students of ITEKES Bali Nursing Undergraduate Program

A person's weight can affect several factors such as excessive food consumption patterns that can affect body weight because the more food consumed, the more calories will burying, besides the lack of activity can also affect one's weight, and genetic factors can also affect weight one's body (Kurdanti *et al.*, 2015).

Bodyweight describes the amount of protein, fat, water and minerals in bone (Supariasa, Bakri and Fajar, 2014). Normal weight has many benefits for everyone, in addition to maintaining an image (self-image), normal body weight is also able to achieve optimal health levels, improve health and to avoid the threat of various diseases such as degenerative diseases, cardiovascular disease, diabetes mellitus.

4.2 Description of Level III Students of ITEKES Bali Nursing Undergraduate Program

Height is a picture of skeletal growth in a person. Height can be affected by a lack of chronic nutritional intake, feeding and improper care of infants and children early in life. Height is also one of the important factors as anthropometric parameters used in calculating nutritional status (Supariasa, Bakri and Fajar, 2014)

Under normal circumstances, a person's height grows with the growth of one's age, so it is not uncommon for people to suspect and estimate the height according to one's age. A person's height growth is different from the process of weight growth, where height is less sensitive to the problem of malnutrition in a short time. The influence of nutrients on height deficiency can occur in a relatively long time (Supariasa, Bakri and Fajar, 2014).

4.3 Overview of Nutritional Status of Level III Students of ITEKES Bali Nursing Undergraduate Program

Based on the results of the study seen from the gender category, in women with 193 respondents, there were eight respondents (4.1%) with severe underweight categories, 20 respondents (10.4%) with mild underweight categories, 141 respondents (73, 1%) with normal weight, ten respondents

(5.1%) with overweight category and 14 respondents (7.3%) with obesity category. Whereas in the male gender with the number of 46 respondents there were two respondents (4.3%) with the category of mild underweight, 29 respondents (63.1%) with normal weight, eight respondents (17.4%) with the overweight category and seven respondents (15.2%) with obesity category.

In general, the results of the study of nutritional status through body mass index (BMI) measurements at level III ITEKES Bali Nursing Undergraduate Program were obtained from 239 respondents, and there were twenty-two respondents (9.3%) mild weight underweight category, eight respondents (3, 3%) heavyweight underweight category, 170 respondents (71.1%) with normal weight category, 18 respondents 7.5% with overweight category and 21 respondents (8.8%) with obesity category.

Analysis of the results of the study showed that the normal weight category had the highest frequency, reaching 170 respondents (71.1%). The results of this study are in line with research conducted by Jaihar (2013) at the SPN Batua Makasar, South Sulawesi, with a sample of 193 respondents, who stated that the frequency of nutritional status in the normal weight category was 192 respondents (98.5%) higher than the nutritional status in the underweight category which is only one respondent (0.5%) and the overweight category is two respondents (1.0%) (Jaihar, 2013). One that can be a factor of nutritional status with the normal category is that the body gets a balanced food intake and physical activity that is carried out regularly (Jaihar, 2013). Nutritional status in the normal category is a dream for everyone because normal nutritional status has benefits to improve health and help to avoid various diseases such as degenerative diseases, cardiovascular diseases.

The results of this study there are still respondents who have an underweight nutritional status that is as many as 22 respondents (9.3%) in the category of mild underweight, eight respondents (3.3%) in the category of severe underweight. Underweight nutritional status can occur because a person experiences a nutrient intake that is less than the body's needs. Lack of consuming foods that contain protein contained in food content such as meat, fish, cheese, beans, tempeh and tofu can also cause a person to experience malnutrition. Underweight nutritional status can also hurt health, where a person who has underweight nutritional status can cause a decrease in the immune system and inhibit the process of growth and development of a person (Jahri, 2016). Also according to Supariasa, Bakri, and Fajar (2014) states that

nutritional status in the underweight category can also result in a person experiencing fatigue, and in pregnant women at high risk of giving birth to babies with low birth weight babies (LBW) (Supariasa, Bakri and Fajar, 2014).

Energy intake that is less than the body's needs will cause a person to experience malnutrition. This is in line with research conducted by Rahim (2014), which states that people who consume less energy intake are at risk 6.73 times suffer from malnutrition compared to people who have enough energy intake (Rahim, 2014). Lack of protein consumption in a person can also result in malnutrition. This is in line with research conducted by Rahim (2014), which states that low protein consumption in a person at 3.49 times the risk of suffering from malnutrition compared with adequate protein consumption (Rahim, 2014).

Overweight in both the overweight and obesity categories in the study was still found, as many as 18 respondents (7.5%) with the overweight category and 21 respondents (8.8%) with the obesity category. Being overweight is something very serious that can cause interference with health problems such as cardiovascular disease, hypertension, type 2 diabetes mellitus (Tandean, Mewo and Wowor, 2018). In addition to health problems, Supariasa, Bakri and Fajar (2014) state that there are some disadvantages of someone who is overweight, for example, appearance is less attractive, and movements tend to be slow and less agile (Supariasa, Bakri and Fajar, 2014). Many factors can influence a person to be overweight; one of them is because he often consumes fast food foods and lack of physical activities such as regular exercise (Putra *et al.*, 2018).

Based on the opinion of researchers, the poor eating habits of respondents is what can cause respondents to be overweight. Overweight or overweight can occur due to the impact of excess energy intake compared to the energy needed by the body so that excess energy will be stored in the form of fat. For example, many teens snacking where teens will eat in small portions but often, even so unwittingly the food consumed will be more and more so that more calories are consumed. This is also inseparable from the rapid development of technology, socioeconomic and cultural levels that cause a shift in changes in eating patterns from simple diets to western-style diets such as the consumption of fast foods that contain lots of fat thereby increasing the risk of being overweight for those who consume it too often. Also, the tendency to consume fast food and snacks in adolescents is caused by easy access to obtain and obtain these foods. This is supported by the many shops that sell fast food and snacks in the canteen on campus and

off-campus. This is in line with research conducted by Pratiwi and Susila Nindya (2017) which says that consuming snacks or snacks in a frequency that can often cause excessive food intake and potentially gain weight (Pratiwi and Susila Nindya, 2017). This is confirmed by research conducted by Wulandari, Lestari and Fachlevy (2016) which states that the consumption of snacks and snacks in frequency can often contribute about 20 - 75% of total calorie intake into the body (Wulandari, Lestari and Fachlevy, 2016). That changes in patterns of excess food consumption can cause the risk of being overweight by 2.49 times (Kurdanti *et al.*, 2015).

Being overweight or overweight is not only related to food consumption patterns but can also be affected by physical activity along with the times the changes in lifestyle, especially in physical activity. Decreased and low physical activity is believed to be one of the factors that can cause overweight. This is consistent with the theory of being overweight due to low physical activity so that the incoming energy intake is used less for activity and some will be stored in the form of body fat, in other words, someone who is overweight tends to do less physical activity (Mardalena, 2017).

This is supported by the results of research conducted by Suryaputra and Rahayu Nadhiroh (2012) which states that most people who are overweight have a mild level of activity and in people who experience normal weight tend to make moderate and frequent patterns of activity (Suryaputra and Rahayu Nadhiroh, 2012). The results of this study are reinforced by the results of research conducted by Arundhana, Hadi and Julia (2013) which states that physical activity is a major cause of overweight and this factor will be riskier if balanced with an unbalanced food consumption pattern that will cause the gap between the amount of energy that enters and the amount of energy that comes out (Arundhana, Hadi and Julia, 2013).

5 CONCLUSIONS

The results of the research on the Nutritional Status of Level III Undergraduate Nursing Students at ITEKES BALI through the Measurement of Body Mass Index (BMI) in 2019 were eight respondents (3.3%) with a severe underweight category, 22 respondents (9.3%) with the underweight category mild level, 170 respondents (71.1%) in the normal weight category, 18 respondents (7.5%) in the overweight category and 21 respondents (8.8%) in the obesity category. In general, the measurement of nutritional status of level III students of ITEKES Bali Nursing Undergraduate Program is highest at the frequency of normal nutritional status.

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The Effectiveness of *Sisya* Dance Training on Increasing Self-Esteem for Housewives

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Abstract:

The objective of the research was to determine the effectiveness of *Sisya* dance training on improving self-esteem among housewives who do not work formally in Banjar Pemamor-Temacun Kuta Village. Pre-experimental with one group pre-test and post-test design was employed in this study. *Sisya* dance training intervention was provided through 3 phases including pre-test on practicing *Sisya* dance for 8 meetings with a duration of 90 minutes, re-evaluated through post-test, and observation sheet. Total 24 housewives who do not work formally was selected using total sampling technique. The data were collected by a validated questionnaire of Rosenberg Self-Esteem Scale and self-administered questionnaire. Paired t-test was used for data analysis. Among 24 respondents, 70,8% of them were studied senior high school. Around 42% of the respondent aged ranging from 26-35 years old and 45,8% of them were marriage for 6-15 years. The findings showed that *Sisya* dance can significantly improve self-esteem among housewives who do not work formally (p value $0,001 < 0,05$). This study results found that *Sisya* Dance can be used as an appropriate method to improve self-esteem, well-being and social status among housewives who do not work formally.

Keywords: Self-Esteem, *Sisya* Dance, Housewives

1 INTRODUCTION

Along with the development of modern society, the demands of life today are increasing, especially in the social and economic fields. The women who have become mothers in modern times have had a change of mind-set towards their abilities to make women rise to fight for their rights and not forget their nature as a housewife.

According to Midawati (2016) emphasising that the involvement of housewife in work is common because of their desires, and some want to help their husbands in helping the family economy. Housewives who work can determine their lives without feeling doubt in determining the steps, have confidence, have confidence and positive self-perception so that they feel proud of the potential that they have (Ananda, 2013).

Housewives who do not work the majority of their time are used to focus on serving their husbands and caring for their children so they rarely gain knowledge with the outside world about how they must look beautiful, confident in front of many people, solve or decide a problem carefully and are considered unable to support development personal because it can't broaden horizons. One example of a housewife who does not work formally is a profession that runs a business at home, where the

majority of her time besides focusing on serving her husband and caring for her children also only sells at home, and it is rare for them to socialise outside the home. So that this role is considered not functioning, which is believed that the self-esteem of working housewives will be higher compared to housewives who do not work (Ananda, 2013). Housewives who do not work are at risk of having low self-esteem where the core problem of housewives who feel low self-esteem often triggers mental disorders (Ananda, 2013).

Data on mental disorders according to the WHO (2013) about 540 million people are suffering from mental disorders. Based on data from the Kemenkes (2018), an average of 40 out of 100,000 people in Indonesia commits suicide. Also, it was noted that the prevalence of depression in people aged > 15 years was only 9% of depressed patients who took medication and 91% who did not take medication. It was recorded that Bali Province was ranked 4th (fourth) region with severe mental disorders by 0.23%. The population of Bali as of 2017 amounted to 4,230,051 people, so 9,729 Balinese citizens experienced severe mental disorders.

Phenomenon data related to psychiatric cases that are currently happening in the district of Gianyar, Bali where a housewife can kill her three biological children with the recognition that they are

unable to bear the burden of family problems that are too complicated ranging from domestic violence faced by her husband to get social stigma from in-laws themselves and cause individual coping with being ineffective then the emergence of core problems low self-esteem to the risk of withdrawal which avoids interaction with others and results in psychological disturbances experienced by the mother and decides to take wrong decisions without seeing the negative effects surrounding.

Housewives who work or who do not work are expected to be able to solve the problems encountered and carry out positive activities that can be poured through women's organisations, namely PKK (Family Welfare Empowerment).

Housewives can channel positive activities such as social gathering and can develop their potential through arts such as dance. Dance is one of the creative arts therapies throughout history that has been used as a therapeutic process for health and improve the social welfare status for humans (Strassel et al., 2011).

Dance in the form of presentation is divided into three groups, namely solo dance, pair dance and group dance (Maysarah et al., 2016). Group dance that is the current trend among housewives or PKK in Bali such as *Rejang Renteng* Dance and *Sisya* Dance. *Sisya* dance history is traced by married women, especially housewives or PKK (Dibia, 2012).

Sisya dance is a traditional dance that developed among Balinese people, which has high historical value, has broad guidelines, is held by the community for generations and is based on adaptation of customs in the surrounding environment. *Sisya* Dance tells the story of Calonarang students who are practicing Kanuragan. While the Story of Calonarang itself is a magical ritual drama that plays stories related to witchcraft, black magic and white magic, known as Pangleayakan (Soedarsono and Narawati, 2011).

Based on the Bali Province Regulation No. 16 of 2009, regarding the spatial plans of the Province of Bali, the highest tourism and cultural areas including the Badung Regency, one of which is in the Kuta area. Kuta is an area of cultural attraction that is still thick in the arts in holding traditions and customs so that *Sisya* dance is always danced once a year right on the Hindu holiday. So it needs to be investigated whether *Sisya* dance is effective in increasing self-esteem (housewives) in housewives who do not work formally in Banjar Pemamorán-Temacun Kuta Adat Village.

2 METHODS

This study used a pre-experimental design with one group pre-test-post-test. This research was conducted in Banjar Pemamorán-Temacun Kuta Adat Village from January 21 to February 10 2019. The population in this study were housewives or PKK mothers who worked formally as many as 30 people. The number of samples was 24 respondents, but six people dropped out because no inclusion criteria were included. Sampling in this study uses non-probability that is a total sampling.

The data collection tool used was a questionnaire adapted from the self-esteem scale made by Rosenberg (1965) and verified in Indonesian by Azwar (2009). The modified questionnaire consisted of 10 items that confirmed positive and negative using a Likert scale. Data were processed using parametric dependent test t-test.

3 RESULTS

The results obtained in this study are as follows:

Table 1: Characteristic of respondents by age, education background, and length of married (n=24).

	Characteristic	f	%
Age (Year)	26-35	41.7	10
	36-45	37.5	9
	46-55	20.8	5
Education Background	Senior High	70.8	17
	University	29.2	7
Length of Married (Year)	<5	20.8	5
	6-15	45.8	11
	16-25	25.0	6
	26-35	8.3	2

Based on the table above, it can be explained that most respondents were aged 26-35 years, namely ten respondents (41.7%). Most respondents graduated from high school / high school as many as 17 (70.8%). Based on the length of the married, most of the age range is 6-15 years, with 11 respondents (45.8%).

Table 2: Self-esteem before doing *sisya* dance (n=24).

Self-esteem pre-test	f	%
Low	0	0 %
Normal	24	100 %
High	0	0 %

Based on the table above shows that overall respondents as many as 24 respondents (100%) had normal self-esteem before performing *Sisya* dance training, and none of the respondents had low or high self-esteem.

Table 3: Self-esteem after performing sisya dance (n=24).

Self-esteem post-test	f	%
Low	0	0 %
Normal	0	0 %
High	24	100 %

Based on the table above shows that the overall respondents as many as 24 respondents (100%) experienced a high increase in self-esteem (self-esteem) after performing *Sisya* dance training and none of the respondents had low or normal self-esteem (self-esteem).

Table 4: Self-esteem normality test results before and after performing sisya dance (n=24).

	Shapiro-Wilk ρ value
Total score pre-test self-esteem	0.082
Total score post-test self-esteem	0.407

Based on the table above the Shapiro-Wilk test results show that the total pre-test self-esteem score is ρ value = 0.082 > 0.05 and the total post-test self-esteem score is ρ value = 0.407 > 0.05, so it can be concluded the value of ρ value > 0.05, which means the data is normally distributed.

Table 5: Differences in self-esteem before and after performing sisya dance (n=24).

	Mean	SD	ρ value
Pre-test	22.46	1.865	-
Post-test	31.29	2.836	-
Total Score Pre-test Self-Esteem	8.833	3.384	0.000

Based on the table above shows that the results of the mean value at pretest amounted to 22.46, at posttest amounted to 31.29 and at pretest to posttest increased by 8.833. The standard deviation value at pretest is 1,865, at posttest is 2,836 and at pretest to posttest is 3,384. Dependent T-Test statistical test results show that the significance value ρ value = 0,000 or 0.001 < 0.05 which means that H_a is accepted so that it can be concluded that the *Sisya*

dance practice affects increasing self-esteem in self-employed housewives. Formally in the Banjar Pemamoran-Temacun Kuta Adat Village.

4 DISCUSSION

4.1 Self-Esteem Before Performing *Sisya* Dance Practice

All housewives who do not work formally are categorized as having good self-esteem. Most housewives who do not work have a productive age with an age range of 26-35 years. Based on recent education, most have a high level of education, namely graduating from high school / high school and university. Based on the length of marriage mostly in the age range of 6-15 years where the age range of marriage is five years and above, housewives must make adjustments to each other, adapt to the new environment or around, including socializing in joining the PKK organization (Wardhani, 2012).

The results of this study are in line with Ananda (2013) research on self-esteem between housewives who work and those who do not work in Balikpapan Regional Government Housing and show the results that working housewives have higher self-esteem than non-working housewives.

4.2 Self-Esteem After Performing *Sisya* Dance Practice

Overall housewives who do not work formally after performing *Sisya* dance practice experienced an increase in self-esteem in the high category. This is caused by the attitude and behavior of the respondents who were very enthusiastic about participating in the *Sisya* dance practice. Also, respondents were given awards and were included in the *Sisya* dance performance. *Sisya* dance practice greatly enhances the social status of housewives so they feel proud and confident in doing activities outside of homework.

In addition to getting experience in practicing dance, housewives also often gather and tell stories and gossip with each other. *Sisya* dance practice is given as many as 8 times a month meeting with a duration of 90 minutes. This intervention was trained by people who are experts in the field of dance and carried out in Banjar Pemamoran-Temacun.

The results of this study are in line with research according to Hermayanti (2015) about increasing self-confidence through creative dancing activities with the results showing that creative dance can increase self-confidence.

4.3 Effectiveness of Sisya Dance Training on Increasing Self-Esteem in Housewives

The results of this study indicate that the condition of housewives who do not work formally with productive and established ages with an age range of 26-35 years, is motivated by higher education, namely graduating from high school / high school and university and the age range of marriage 6-15 years in which the age range of marriage is 5 years and above, housewives must make adjustments to one another, adapt to the new environment or surrounding, including socializing in joining the PKK organization (Wardhani, 2012).

Sisya dance practice greatly affects the self-esteem of housewives because they are proud to be able to participate in this activity and can socialize with one another. Also, it can improve the social status of housewives so they feel confident in doing activities outside of homework. In addition to getting experience in practicing dance, housewives also often gather and tell stories and gossip with each other.

It is supported by good dance practice management and the interventions provided accordingly so that it causes significant that *Sisya* dance practice can increase self-esteem (housewives) in housewives who do not work formally. This is in line with research according to Strassel et al. (2011) that dance is one of the creative art therapies throughout history that has been used as a therapeutic process for health and improve the status of social welfare for humans, one of which is self-esteem in humans.

5 CONCLUSIONS

Overall housewives who do not work formally still have good self-esteem. This is because housewives have played an active role in the PKK organization in Banjar. In addition, most of them have productive age, are motivated by the latest high education and have a productive marriage age. In self-esteem (self-esteem) housewives who did not work formally after

doing *Sisya* dance training experienced an increase in the high category. This is caused by the attitude and behavior of the respondents who were very enthusiastic about participating in the *Sisya* dance practice. In addition, respondents were also given awards and were included in the *Sisya* dance performance. It can also improve the social status of housewives so they feel proud and confident in doing activities outside of homework.

Sisya dance practice is given as many as 8 times a month meeting with a duration of 90 minutes. This intervention was trained by people who are experts in the field of dance and carried out in Banjar Pemamoran-Temacun. This is supported by good dance practice management and the interventions that are given accordingly so that it causes significant that *Sisya* dance practice can increase self-esteem (housewives) in housewives who do not work formally.

The limitation of this study is that this study cannot explain or tell the respondent related to the history of the *Sisya* dance or other matters relating to the dance itself. Researchers do the door to door (each to the respondent's house) and cannot collect the respondents simultaneously

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The Relationship of the Role of Health Service Integrated Post Cadres on the Knowledge and the Attitude of the Mother about Stunting Prevention

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Abstract:

Stunting is a growth failure condition of children under five years old due to chronic malnutrition. Prevalence of stunting in Indonesia is still high. One of the factors associated with stunting is the knowledge and attitude of the mother. The aim of this study was to determine the correlation of the role of Health Service Integrated Post Cadres towards the knowledge and the attitude of mother about stunting prevention in the working area of Public Health Centre II Ubud. Correlative analytic design was used in this study with a cross-sectional approach. 204 respondents were selected using systematic random sampling technique. The data were collected using a questionnaire of knowledge and attitude which were self-developed by the researcher and analysed by using the Spearman's Rho test. The majority age of respondent ranged from 26-35 years. Findings indicated that the majority of respondents (73.5%) stated that the cadres had a good category. In which, 89.7% of respondents had a good category of knowledge and 92.6% of respondents had a good category of attitude. The Spearman's Rho statistical test showed significant results between the role of Health Service Integrated Post cadres on mothers' knowledge and the attitudes about the prevention of stunting (p-value <0.001 and r = 0.303). In relation to the role of Health Service Integrated Post cadres and maternal attitudes, there were also significant results (p-value <0.001 and r = 0.193). The better the role of cadres, the better the mother's knowledge and attitudes towards the preventions of stunting. It is expected that cadres have more active roles in the Health Service Integrated Post programs as well as improve their skills by attending the meeting conducted in Public Health Centre.

Keywords: Knowledge, Attitude, Role of Health Service Integrated Post Cadre, Stunting

1 INTRODUCTION

Nationally the nutritional status of children in Indonesia is still a problem. The number of malnourished sufferers in the world reaches 104 million children and malnutrition is the cause of one third of all causes of child death worldwide. The impact of malnutrition in children is stunting. Stunting is a condition of failure to thrive in children under five (babies under five years old) due to chronic malnutrition. One of the characteristics of children who experience stunting is a shorter child's height when compared to children his age (TNP2K, 2017).

In addition to height problems, stunting can also cause several health problems for children, such as growth and development disorders, decreased cognitive ability and learning achievement, decreased immunity, and increases the risk of diabetes, heart disease, cancer, stroke and disability in old age (Kemenkes, 2017).

According to the 2014 Global Nutrition Report, Indonesia is 1 of 17 countries in the world that have stunting problems (Kemenkes, 2017). Toddler stunting prevalence in Bali in 2016 was 19.7%. One of the districts in Bali that has a high number of stunting is the Gianyar Regency. Stunting cases in Gianyar increased from 2016 by 13.6% to 22.5% in 2017. Based on data from TNP2K (2017), stated Singakerta Village Gianyar Regency is one of the villages that became a stunting priority in 2018. Based on the results of a preliminary study conducted by researchers, Singakerta Village is one of the regions in Gianyar Regency with a high level of stunting cases. Approximately 70 toddlers who were stunted in Singakerta Village.

The problem of stunting is an acute-chronic nutritional problem that requires joint handling from all parties. In this regard, the government has launched a National Action Plan for Handling Stunting in August 2017. The government is trying to optimize the function of *Posyandu* and increase

the participation of cadres in preventing stunting. This is because cadres are believed to have a very large role in the implementation of *Posyandu*, namely as a provider of health information to the community and as a community mobilizer to carry out clean and healthy living behaviors (Kemenkes, 2012).

Until now there is still minimal research on the relationship of the role of *Posyandu* cadres to the knowledge and attitudes of mothers in preventing stunting, especially in Gianyar Regency. Based on this, researchers are interested in conducting research on "The Relationship of Posyandu Cadre Roles to the Knowledge and Attitudes of Mothers in Preventing Stunting in the Work Area of Ubud II Health Center in Gianyar Regency".

2 METHODS

This study uses a correlative analytic design with a cross-sectional approach. The population in this study were all mothers who participated in *Posyandu* in the Ubud II Public Health Center, with a sample of 204 people. This research was conducted in March 2019 in the Working Area of Ubud II Public Health Center in Gianyar Regency. In this study a questionnaire with 26 questions about the role of cadres, the knowledge and attitudes of mothers regarding stunting prevention was used.

In collecting the data, the researcher came to respondents in the *Posyandu* located in the Ubud II Public Health Center, Gianyar Regency. Before conducting data collection researchers introduce themselves and explain the intent and purpose of prospective respondents. The sampling technique used was consecutive sampling. Researchers have obtained ethical eligibility from the FK UNUD / Sanglah Hospital Denpasar Medical Ethics Commission with Number: 559 / UN14.2.2 / LP / 2019.

3 RESULTS

The results obtained in this study are as follows:

Table 1: Frequency Distribution of Respondents in the Work Area of Ubud II Public Health Center in Gianyar Regency (n = 204).

Characteristic	f	%
Age		
1. Late teens (17-25)	79	38.7

2. Early Adults (26-35)	114	55.9
3. Late adulthood (36-45)	11	5.4
Education		
1. Not Graduated from Elementary School	-	-
2. Graduated from elementary school	1	0.5
3. Graduated from junior high school	25	12.3
4. Graduated from high school / high school / MA	144	70.6
5. Graduate Diploma / PT	34	16.7
Profession		
1. Work	107	52.5
2. Non-job	97	47.5

The above table shows that the majority (55.9%) of respondents are in the age range of 26-35 years, the last education graduated from high school / high school / MA (70.6%), and work (52.5%).

Table 2: Frequency distribution of Posyandu Cadre Roles on stunting prevention in the Ubud II Health Centre Work Area in Gianyar Regency (n = 204).

The Role of Cadres	f	%
Good	150	73.5
Average	52	25.5

In the table above shows the majority of mothers (73.5%) stated that cadres showed a good role related to stunting prevention.

Table 3: Frequency distribution of mother's knowledge about stunting prevention in the working area of Ubud II Public Health Centre in Gianyar Regency (n = 204).

Mother Knowledge	f	%
Good	183	89.7
Average	20	9.8
Poor	1	0.5

The table above shows that the majority of mothers (89.7%) have a good level of knowledge related to stunting prevention.

Table 4: Frequency distribution of Mother's Attitudes about stunting prevention in the Working Area of Ubud II Health Centre in Gianyar Regency (n = 204).

Mother Attitude	f	%
Positive	189	92.6
Neutral	13	6.4
Negative	2	1.0

In the table above shows that the majority of mothers (92.6%) have a good category of attitude related to stunting prevention.

The relationship of the role of Posyandu cadres to the knowledge and attitudes of mothers about stunting prevention in the Ubud II Health Centre Work Area, Gianyar Regency.

Table 5: Relationship between Posyandu Cadre Roles and Mother's Knowledge of Stunting Prevention in the Work Area of Ubud II Health Centre in Gianyar Regency (n = 204).

			Role Total	Knowledge Total
Spearman Rho	The Role of Cadre	Correlation Coefficient	1.000	0.303
		Sig (2-tailed)		0.000
	Mother's Knowledge	Correlation Coefficient	0.303	1.000
		Sig (2-tailed)	0.000	

Spearman's Rho statistical test results, showed p value <0.05, which means Ha is accepted and H0 is rejected. This shows that the role of cadres has a significant relationship with the level of maternal knowledge about stunting prevention.

Table 6: Relationship between Posyandu Cadre Roles and Mother's Attitudes of Stunting Prevention in the Work Area of Ubud II Health Centre in Gianyar Regency (n = 204).

			Role Total	Knowledge Total
Spearman Rho	The Role of Cadre	Correlation Coefficient	1.000	0.193
		Sig (2-tailed)		0.006
	Mother's Attitude	Correlation Coefficient	0.193	1.000
		Sig (2-tailed)	0.006	

Spearman's Rho statistical test results, showed p value <0.05, which means Ha is accepted and H0 is rejected. This shows that the role of cadres has a significant relationship with the mother's attitude about stunting prevention.

4 DISCUSSION

4.1 Role of Posyandu Cadres

Posyandu cadres are community members who voluntarily are willing, able and have the time to organize Posyandu activities (Swarjana, 2014). One of the roles of posyandu cadres is to prevent stunting. In this study it was found that the majority of mothers stated that cadres had a good role.

Researchers assume one of the factors that influence the role of cadres in preventing stunting is training or counselling. One of the counsellors recently attended by cadres at Puskesmas Ubud II was regarding stunting prevention. Based on data from the Ubud II Health Centre, this counselling was attended by around 75% of Posyandu cadres who came from the Ubud II Health Centre. Training and counselling can also increase cadre's confidence. This is in line with the results of research conducted by Amir (2018), which states that the understanding of Posyandu cadres can be increased by attending training or counselling. Besides the factors that can influence the role of cadres is age. Cadres in Puskesmas Ubud II are aged between 25-50 years, including adults. Wawan and Dewi (2010) in their research stated that the more mature a person is, the better experience and maturity, so that they are trusted by the public.

Cadres have a very important role because cadres are responsible for implementing Posyandu. The more active the role of cadres, the more Posyandu activities will also be smoother. Likewise, on the other hand, the less active role of Posyandu cadres, the Posyandu activities will not be smooth. This is in line with research conducted by Amir (2018) in Sangkup, which states that the active role of cadres is related to the nutritional status of children under five. The role of Posyandu cadres includes, providing counselling to mothers, motivating mothers to always provide good parenting to their children, expressing appreciation to mothers who have come to Posyandu, as well as conveying information to parents to contact cadres if there are problems with their toddlers (Kemenkes, 2012). The most dominant role of cadres in the Ubud II Health Centre is to educate mothers regarding the importance of going to the Posyandu. This is consistent with the results of the study, where 88.2% of respondents stated that cadres always reminded mothers to attend Posyandu according to schedule.

4.2 Mother's Knowledge of Stunting Prevention

Knowledge is the result of knowing, and this happens after someone senses a certain object (Notoatmodjo, 2012). In this study it was found that the majority of mothers in the working area of the Ubud II Health Centre had a good level of knowledge related to stunting prevention.

This happens, one of which is influenced by age. Lestari (2015) states that knowledge is influenced by several factors, one of which is age. The majority of mothers in this study were in the adult age range. In this age range a person will more easily receive and process information, so that it will increase one's knowledge.

Besides age, education factors also affect the level of knowledge of a person. The higher the level of mother's education, the more information that can be accessed so that the mother's knowledge increases (Notoatmodjo, 2012).

4.3 Mother's Attitudes about Stunting Prevention

Attitude is a reaction or response of someone who is still closed. Attitude shows the correspondence between reactions and stimuli that already involve emotions and opinions of someone. Therefore, it is not only an action or activity, but a tendency to carry out an action or behavior.

In this study, the majority of mothers had a good attitude regarding stunting prevention. These results are in line with research conducted by Olsa et al. (2018), where the majority of mothers in the study also had a positive attitude related to stunting prevention.

According to Lestari (2015), there are several factors that influence a person's attitude, namely personal experience, the influence of others who are considered important, cultural influences, mass media, educational institutions, religious institutions and emotional factors.

In this study, the mass media factor can be said to have a large influence on maternal attitudes related to stunting. This is because, information related to stunting has been widely distributed through mass media (both electronic and conventional) and social media. Increased opportunities for mothers to access information related to stunting, will add insight, and affect their attitudes to prevent stunting.

4.4 Relationship between Posyandu Cadre Role and Mother's Knowledge Level about Stunting Prevention

In this study it was found that there was a significant relationship between the role of cadres and maternal knowledge related to stunting prevention. This shows that Posyandu cadres have a very important role in increasing maternal knowledge, especially regarding stunting prevention. These results are consistent with research conducted by Onthonie et al. (2015), where the cadre's performance as a motivator will affect the level of maternal knowledge related to health issues.

According to Saepuddin et al. (2017) and Dewi (2017), cadres have an important role in improving the quality of maternal and child health, one of which is by disseminating information related to maternal and child health. In addition, the delivery of information through cadres is known to be more effective, because cadres already know the characteristics of mothers who are around the cadres.

4.5 Relationship between Posyandu Cadre Role and Mother's Attitude on Stunting Prevention

In this study it was found that there was a significant relationship between the role of cadres and maternal attitudes related to stunting prevention. These results indicate that in addition to increasing knowledge, the role of Posyandu cadres can also improve the attitude of mothers to prevent stunting.

This is in line with research conducted by Kawulur et al. (2018) in Manado, which found a relationship between cadre performance and maternal attitudes related to the use of Posyandu. This happens because the cadre is one of the community leaders who has significant influence in the community. According to Lestari (2015), the influence of others who are considered important can affect one's nature. In the community, cadres are considered to have more knowledge related to information about health, as well as taking an active role in the activities of community health centres. So that in general, the community will trust and follow the things suggested by the cadres. This is supported by Wawan and Dewi (2010), where individuals will tend to obey or have thoughts in line with people who are considered important.

5 CONCLUSIONS

Based on the results of the above research it can be concluded that there is a relationship between the role of *posyandu* cadres to the knowledge and attitudes of mothers regarding stunting prevention in the Ubud II Health Centre Work Area of Gianyar Regency.

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Relationship between Knowledge and Behavior of Informal Workers in Tourism Industries in Using Sun Protection

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Abstract:

The use of sun protection is a key factor in the prevention of skin cancer, especially for those who spend significant time under the sun, such as informal workers in tourism industries. However, preliminary observation reveals that these workers are lacking in the use of sun protection. The purpose of this study was to identify relationship between knowledge and behavior of informal workers in tourist industries on the use of sun protection. This study was a descriptive study with a cross-sectional approach. Respondents were 299 informal workers at Kuta Beach and selected through consecutive sampling techniques. Data were collected using a modified, self-administered questionnaire. Data were analyzed using Spearman's Rho Correlation. Among 299 respondents, 23.4% were females and 76.6% were males. Most of them aged between 26-35 years (32.4%). Findings indicated that 59.9% had less knowledge, 32.8% had moderate knowledge, 7.4% had adequate knowledge. Meanwhile, 61.2% had inadequate behavior of the use of sun protection, 36.1% had moderate behavior, 2.7% had adequate behavior. There was a medium correlation between two variables, $r = 0.411$, $n = 299$, $p < 0.001$, with high levels of knowledge associated with high levels of behavior. Informal workers in tourism industries are expected to increase knowledge towards sun protection uses and to apply sun protection.

Keywords: Knowledge, Behavior, Sun Protection, Skin Cancer

1 INTRODUCTION

Sun protection is an act of protection from UV radiation such as shelter in the shade, using clothes and hats, and applying sunscreen to areas of the body that remain open such as the face and hands (Cooper *et al.*, 2001). Ultraviolet radiation (UV) is part of the electromagnetic spectrum emitted by the sun. A small amount of UV light is important for the production of vitamin D in the body, if over-exposed it will cause acute and chronic health problems in the skin, eyes, and immune system (Guard, 2004).

Many skin diseases are caused by excessive and unprotected sun exposure. High cumulative levels of UV radiation can damage skin cells, affect the growth and normal appearance of the skin, causing acute skin damage, such as tanning and sunburn. More complex chronic skin problems can occur with long-term exposure, such as skin pigment changes, skin aging to skin cancer (malignant melanoma skin cancer, and non-melanoma skin cancer) (AlGhamdi, AlAklabi and AlQahtani, 2016).

Knowledge would influence one's behavior. The practice is part of one's behavior. However, this is not in line with evidence from a study that patients treated in dermatology clinics from hospitals have adequate knowledge but show poor practice in applying photoprotection (Thomas-Gavelan *et al.*, 2011).

The importance of applying sun protection for travelers is to avoid short-term health problems such as sunburn, and long-term problems such as skin cancer (NMSC or MMC). Saudi society's awareness of sun protection indicates that the level of awareness among Saudis about the dangers of sun exposure and sun protection measures is still low.

Having a high education does not guarantee the individual has good knowledge and behavior towards something. This is evidenced in research from Alzahrani *et al.* (2018) about the level of knowledge and behavior of medical personnel about the dangers of excessive sun exposure. It was found that the level of knowledge about skin cancer and behavior towards sun exposure among medical personnel is still low.

Bali is a tourist area famous for its natural beauty and tropical climate. According to the Tourism Profile, the tourism sector in Badung Regency is the most favored sector each year. This is due to a large number of Tourist Attraction Objects located in Badung Regency, which are mostly scattered in the District of South Kuta. More tourists results in more workers in tourism industries working in the area. Informal works who work in coastal areas are chosen as research respondents because tourism workers working from morning to night cannot avoid UV radiation.

Kuta Beach is a tourist destination. In addition to its natural beauty, Kuta Beach also offers various types of tourism services carried out by informal workers such as coastal guard, surf trainer, and various types of traders who sell a variety of types of food, and other services. Based on observations on Kuta Beach conducted by researchers, there are still many informal workers who do not apply the simplest sun protection that is wearing clothes that can protect from UV rays, one of them is like a surfing coach who is training tourists during the day, but at that time surf coaches they do not wear clothes. Also, Kuta Beach is one of the beaches where there are more informal workers, but no studies have been done to explore this issue. Therefore, researchers are interested in conducting this study in Kuta Beach.

The absence of research conducted in Bali in the field of tourism health regarding the use of sun protection motivates researchers to conduct this research.

2 METHODS

This study employed a descriptive correlation design with a cross-sectional approach in the population or research on samples that are part of the population. Population of the study was all informal workers in tourism industries working around Kuta Beach with a sample size of 299 respondents. The sampling technique used in this study is a non-probability sampling technique with consecutive sampling.

The inclusion criteria in this research were informal workers working along Kuta Beach, and willing to become respondents by signing informed consent. Those who were not able to read and write were excluded from the study.

This study guaranteed that the principal of ethics in research is followed including informed consent, which is a statement of the respondent's consent prior to data collection. This study was also approved by the Research Ethics Committee

Faculty of Medicine, Universitas Udayana/ Sanglah Hospital Denpasar.

In this study, researchers used a data collection method with a questionnaire. The questionnaire used in identifying knowledge of sun protection consisting of 24 questions and behavior questionnaire on sun protection consisting of 18 questions. These questionnaires were modified from a previous research (Alzahrani *et al.*, 2018). Content validity involving two experts in the area was conducted prior to data collection. SPSS Statistics For Windows 20 was used to analysed the data.

3 RESULTS AND DISCUSSION

3.1 Respondents

The total of 299 respondents, the majority of respondents were 26-35 years old ($n = 97$; 32.4%). Based on gender, the majority of respondents were male ($n = 229$; 76.6%). Based on the type of work, it can be explained that the majority of respondents work as traders ($n = 159$; 53.2%). The majority of them had 1-5 years experience working as informal workers ($n = 141$; 47.2%). The characteristics of respondents can be seen in Table 1.

Table 1. Characteristic of Respondent

Responden Characteristic	Frequencies (n)	Percentage (%)
Age		
>65 years	7	2,3
56-65 years	19	6,4
46-55 years	51	17,1
36-45 years	56	18,7
26-35 years	97	32,4
17-25 years	69	23,1
Gender		
Male	229	76,6
Female	70	23,4
Job Description		
Seller	159	53,2
Surfer Coach	127	42,5
Coast Guard	13	4,3
Length of work		
>15 years	66	22,1
11-15 years	27	9,0
6-10 years	65	21,7
1-5 years	141	47,2

3.2 Knowledge of Sun Protection

From the results of the analysis, it can be seen that from 299 total number of respondents, 179 respondents (59.9%) had a lack of level of knowledge of sun protection. Then 98 respondents (32.8%) have a sufficient level of knowledge of sun protection, and 22 respondents (7.4%) have a good level of knowledge of sun protection.

The factors that influence the level of knowledge are work. Most types of respondent occupations are traders. The traders in Kuta Beach are informal workers in the tourism industry, which do not require high education to work so that in this study, most of the respondents have less knowledge. The study did not discuss and examine more deeply the factors of work with the level of knowledge of the use of sun protection.

The experience of a person can influence knowledge. Most of the respondents' working time is 1-5 years, where the respondent still has a new experience in the world of work so that it will affect the respondent's knowledge. The study did not discuss and examine more deeply the factors of long working with the level of knowledge of the use of sun protection.

The level of knowledge possessed by respondents in this study can be said to be largely lacking because as many as 249 respondents (83.3%) do not know sun exposure is a risk factor for long-term health problems, namely skin cancer. Excessive exposure to ultraviolet radiation (UV A and UV B) is a major risk factor for malignant melanoma cancer (MMC) and non-melanoma skin cancer (NMSC) and the main cause of skin cancer is exposure to ultraviolet (UV) rays obtained from the sun because UV rays can damage the DNA of skin-forming cells.

A total of 240 respondents (80.3%) did not know the use of sunscreen needs to be repeated every 2 hours, in the research conducted by Alzahrani, et al. (2018) states that the use of sunscreen must be repeated every 2 hours, and according to Widiyansyah (2002) in Rahmawati (2018) states that the selection of sunscreen is based on the SPF value multiplied by 10 minutes which shows the durability of the sunscreen in protecting the skin, for example, someone wearing a sunscreen with SPF 15 then the sunscreen can protect 15 x 10 minutes which is 150 minutes or 2 hours 30 minutes from exposure to UV rays before the skin becomes burned and red. A total of 211 respondents (70.6%) did not know that skin cancer can occur on dark skin, in research conducted by (Alzahrani *et al.*, 2018) states that skin cancer can occur in people who have dark-skinned.

This is because tourism practitioners working on Kuta beach have never been given health education or counseling related to protection

against sunlight and the danger of being exposed to excessive sunlight. The information also influences a person's knowledge where information is a transfer of knowledge. The more information that comes in, the more knowledge gained about health. Health education is related to information communication. Health education is the use of the concept of education in the health sector. Specific goals of health education are changes in knowledge (cognitive), attitudes (understanding, motivation), or practice (getting access to health information, using information) to improve or maintain their health.

Knowledge is the result of knowing, and this happens after people have sensed a certain object. Sensing occurs through the five human senses, namely the sense of sight, hearing, smell, taste and touch. Most of human knowledge is obtained through the eyes and ears and is very important in the formation of one's actions. The results of research conducted by (Alzahrani *et al.*, 2018) with the research title "Awareness, Knowledge and Behavior of Medical Personnel Regarding Skin Cancer, Sun-Related Hazards and Sunscreen Utilization at King Abdulaziz University Hospital, Jeddah" where it was found that the majority of respondents had less knowledge levels and to increase the level of knowledge of researchers suggest doing health education about the dangers of sunlight and the benefits of using sunscreen.

In this globalization era, it is very easy to get information due to increasingly sophisticated technological advancements. Now mobile phones or so-called smartphones are equipped with the internet that will make it easy for people to access information. Almost all of the tourism actors working on Kuta Beach use smartphones, but they still have a lack of level of knowledge on sun protection due to the lack of awareness of tourism actors about the dangers of excessive UV light exposure and the health impacts that will result.

3.3 Behavior on the Use of Sun Protection

The results of the analysis of the behavior of tourism actors towards the use of sun protection (n = 299), it was found that 183 respondents (61.2%) had less behavior towards sun protection. Then 108 respondents (36.1%) had sufficient behavior towards sun protection, and eight respondents (2.7%) had good behavior towards sun protection.

Almost all research respondents were male. In the observations, male respondents did not apply sun protection to wear clothes during the day so that sex could influence behavior towards the use of sun protection. But in this study did not discuss

and examine more deeply about sex factors with the behavior towards the use of sun protection.

The behavior of the respondents in this study can be said to be largely lacking because that is as many as 238 respondents (79.6%) have never examined a dermatologist, according to Arizona Dermatology, someone checks an dermatologist at least once a year but in people who at risk of being expected to visit a dermatologist more often.

Table 2. Relationship between Knowledge Level and Behavior on Sun Protection Use

		Level of Knowledge	Behavior
Level of Knowledge	<i>Spearman's rho correlation</i>	1.000	.411**
	<i>Sig (2-tailed)</i>	.299	.299
	<i>N</i>		
Behavior	<i>Spearman's rho correlation</i>	.411**	1.000
	<i>Sig (2-tailed)</i>	.299	.299
	<i>N</i>		

A total of 217 respondents (72.6%) never avoid sunlight from 10:00 to 16:00 WITA, according to WHO, the UV index is the strongest between 10 a.m to 4 p.m, and it is recommended to use sun protection properly. In this case, tourism actors cannot avoid sunlight at that time because tourism actors must work, therefore it is expected to use sunscreen, but there are still many tourism actors who do not use sunscreen at that time.

A total of 196 respondents (65.6%) had never used SPF 15 or more sunscreen. The reason tourism practitioners do not use sunscreen is that they assume there is no benefit when using sunscreen. Without sunscreen, they will not get sick, and they also consider wasting money when buying sunscreen. Sunscreen has the function of absorbing, reflecting or scattering solar energy that hits the human skin, so that it can protect the skin from erythema due to sun exposure, without sunscreen the skin exposed to direct sunlight will last for 10 minutes before the skin becomes burnt and red.

As many as 130 respondents (43.5%) never took shelter in the shadows of other objects (shade), according to WHO to be in the shade such as trees, umbrellas or canopies when UV light is strongest between 10 am to 4 pm can reduce UV exposure even though it does not provide complete sun protection. Kuta beach has many shady trees and therefore Kuta Beach also has a shady place, but there are still many tourism practitioners who

work there less use of the shade to protect themselves from direct exposure to sunlight

This is because tourism actors who work on Kuta beach have less knowledge of the use of sun protection. According to Henry and Dewi (2010) behavior is influenced by several factors, both from internal and external individuals themselves. Factors from the internal of an individual such as knowledge. Knowledge will affect a person's behavior. In theory, knowledge or cognitive is a very important domain for the formation of a person's behavior or actions (overt behavior). If behavior change is based on knowledge, it will lead to long-lasting behavior (Notoatmodjo, 2012). Behavior is all human activities or activities, both those that can be directly observed, or those that cannot be observed by outsiders (Notoatmodjo, 2012).

Human knowledge about what they see, learn, think, and influenced by the environment becomes an attitude that is done every day so that behavior is formed.

3.4 Relationship between Knowledge Level and Behavior on Sun Protection Use

Table 2 above shows that a P-value <0.001 is obtained, which means that the value of $p < 0.05$, then H_a is accepted where the results show that there is a significant relationship between the level of knowledge with the behavior of tourism actors towards the use of sun protection on Kuta Beach. This relationship is indicated by the strength of correlation ($r = 0.411$), which is included in the moderate category (0.40-0.599), with a positive correlation direction (+) which means the better the level of knowledge the better the behavior of tourism actors towards the use of sun protection.

4 CONCLUSION

Based on the results of the study, it can be concluded that the level of knowledge of tourism actors towards the use of sun protection, most of them have less knowledge of the behavior of tourism actors towards the use of sun protection, most of them have less behavior. Based on the analysis using Spearman's Rho Correlation, the results show that there is a significant relationship between the level of knowledge and the behavior of tourism actors towards the use of sun protection on Kuta Beach.

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Relationship of Nutritional Conscious Family Behavior with Stunting in Songan Village

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Abstract:

Stunting is a chronic nutritional problem that often occurs in the world, wherein 2016, as many as 154,800,000 children under the age of 5 years experienced stunting. In Bali, the highest incidence of stunting in 2016 in Bangli was 28.6%, and in 2017 it reached 28.4%. One effort in the nutrition improvement program to reduce the incidence of stunting is to improve the quality of food consumption through the Nutrition Awareness Family Program. This study aims to determine the relationship between the behavior of Nutrition Conscious Families with stunting in the village of Songan. This study uses a cross-sectional study design, with a total sample of 112 families with children aged 24-59 months. Sampling is done by a stratified sampling method. This study uses a questionnaire created by researchers. The data in the questionnaire were filled in by the respondents themselves, and all respondents filled out the questionnaire. Height per age is an indicator to measure stunting. Data were analysed using the chi-square test. As many as 37.5% of respondents were elementary school graduates, and 39.2% worked as farmers. The results of this study indicate that the majority of respondents have the behavior of the Nutrition Awareness Family in the sufficient category as many as 51 people (45.5%), and the incidence of stunting in infants is 12 people (10.7%). Based on the chi-square analysis, it was found that there was a significant relationship between the behavior of the Nutrition Conscious Family and the incidence of stunting in Songan Village with p-value 0.002 and OR 0.000. This research concludes that if the behavior of the Nutrition Conscious Family is good, then it can reduce the risk of a toddler experiencing stunting. Families are expected to improve the behavior of Nutrition Conscious Families because balanced nutrition is needed in the child's growth and development process.

Keywords: Nutrition Conscious Family, Stunting, Toddler

1 INTRODUCTION

Malnutrition is a process of lack of food intake when normal needs for one or several substances are not met (Manary and Solomons 2009). The impact of malnutrition is stunting. Stunting is a linear growth problem caused by a lack of chronic nutrient intake and chronic or recurrent infectious diseases as indicated by a height z-score by age (TB / U) of less than -2 SD (Standard for Revision) (World Health Organization 2010)

In 2016, 22.9% or 154,800,000 children under 5 years of age experienced stunting (World Health Organization 2018). Based on the Indonesian Health Profile in 2017, the incidence of stunting in the Province of Bali was 15.1% (Profil Kesehatan Indonesia 2017). The percentage of stunting according to the Provincial Health Profile of Bali on in 2016 the most occurred in Bangli Regency which amounted to 28.6% (Profil Kesehatan Provinsi Bali

2016). According to the Nutrition Status Monitoring (PSG) in 2017 the percentage of stunting in Bangli District was 28.4% (Profil Kesehatan Provinsi Bali 2017). Based on these data the percentage of stunting's in 2016 to 2017 in the Regency Bangli has decreased by only 0.2%.

One effort in the nutrition improvement program is to improve the quality of food consumption through the Nutrition Awareness Family program, which is expected to have an impact on improving nutritional status. According to the Decree of the Minister of Health of the Republic of Indonesia Number: 747 / Menkes / SK / VI / 2007 concerning Operational Guidelines for Nutrition-aware Families in the Alert Village. A family is called KADARZI if it has behaved like weighing regularly, giving exclusive breast milk, eating a variety of foods, using iodized salt, taking nutritional supplements as recommended (Keputusan Menteri Kesehatan Republik Indonesia 2007). Based on data on Health

Profile of Bangli Regency in 2017 low KADARZI behavior occurs in the working area of the Kintamani V Health Center with coverage of toddlers reaching 69%, exclusive breastfeeding coverage of 69.2%, iodized salt consumption of 56.7%, and coverage of vitamin 100% (Profil Kesehatan Kabupaten Bangli 2017).

Based on the explanation above, the researcher wants to research nutritional problems in children, stunting. The study was contained in a study entitled "Relationship of Nutrition Conscious Families with Stunting's in Songan Village."

2 METHODS

This study uses a cross-sectional study design. The study was conducted in Songan Village from February to March 2019. The population in this study were 157 families and toddlers aged 24-59 months, with a total sample of 112 respondents. The sampling technique used is the stratified sampling method. Data collection using a questionnaire made by the researcher, and in collecting data, the questionnaire was filled in by the respondent himself. Measurements for stunting use an indicator of height per age. Data were analysed using the chi-square test.

3 RESULTS

The results obtained in this study regarding the relationship between the behavior of the Nutrition Conscious Family with the incidence of stunting in Songan Village as follows:

Table 1: Family characteristics based on family age, relationship with toddlers, education, occupation, toddler age, and gender of toddlers in Songan village 2019 (n = 112)

Characteristic	Frequencies (n)	Percentage (%)
Age of Family (Years)		
20-25	8	7,1
26-30	34	30,4
31-35	30	26,8
36-40	31	27,7
41-45	7	6,3
46-50	2	1,8
Family Status		
Mother	69	61,6
Father	43	38,4
Education		

Background		
Non-Education	3	2,7
Elementary School	42	37,5
JHS	24	21,4
SHS	32	28,6
Diploma/Bachelor	11	9,8
Job Type		
Non-job	3	2,7
PNS/TNI/POL RI	1	0,9
Private	2	1,8
Entrepreneur	15	13,4
Others	91	81,3
Other Jobs		
Nurse	1	0,5
Village officer	1	0,5
Farmer	83	39,2
Entrepreneur	8	3,8

Secondary Data, 2019

Based on table 1. From 112 respondents, it can be seen that based on age, the majority of families under five are in the age range of 26-30 years as many as 34 people (30.4%). Based on the relationship with toddlers, most respondents were mothers of toddlers, namely 69 people (61.6%). Based on the level of education, most respondents only graduated from elementary school (SD), amounting to 42 people (37.5%). The work of the family of toddlers, most of the other professions, is as farmers 83 people (39.2%).

Table 2: Toddler characteristics based on toddler age and gender in Songan village in 2019 (n = 112)

Characteristic	Frequencies (n)	Percentage (%)
Age (Months)		
13-24	9	8,0
25-36	34	30,4
37-48	42	37,5
49-59	27	24,1
Sex		
Boy	60	53,6
Girl	52	46,4

Based on table 2. from 112 toddlers, it can be seen that most of the toddlers are in the range of 37-48 months, as many as 42 people (37.5%), and most of them are men, as many as 60 people (53.6%).

Table 3: Nutrition conscious family behavior category based on kazarzi indicators

Nutrition Indicator	Category		
	Good n (%)	Sufficient n (%)	Poor n (%)
Weight regularly	40 (39,3%)	50 (44,6%)	18 (16,1%)
Provide exclusive breastfeeding	48 (42,9%)	61 (54,5%)	3 (2,7%)
Eat a variety of foods	23 (20,5%)	50 (44,6%)	39 (34,8%)
Using iodized salt	14 (12,5%)	6 (5,4%)	92 (82,1%)
Take nutritional supplements	44 (39,3%)	53 (47,3%)	15 (13,4%)

Based on table 3 it can be seen that of the 112 respondents most of whom have a weight-weighing behavior regularly in the sufficient category of 50 people (44.6%), the behavior of giving exclusive breastfeeding in the sufficient category is 61 people (54.6%), eating behavior a variety of foods in the adequate category is 50 people (44.6%), behavior using iodized salt in the less category is 99 people (82.1%), and the behavior of taking nutritional supplements in the adequate category is 53 people (47.3%).

Table 4: Nutrition conscious family behavior category in Songan village

Nutrition Conscious Family	Frequencies (n)	Percentage (%)
Good	47	42,0
Sufficient	51	45,5
Poor	14	12,5

Based on table 4, it can be seen from 112 respondents that most of them have Family Nutrition Awareness in the sufficient category of 51 people (45.5%), good behavior of 47 people (42.0%), and less behavior of 14 people (12.5%).

Table 5: Categories of stunting status in Songan village

Stunting Status	Frequencies (n)	Percentage (%)
Yes	12	10,7
No	100	89,3

Based on table 5. it is explained that 12 children experienced stunting in Songan village (10.7%) and 100 stunted children (89.3%).

Table 6: Chi-square test results of relationship between nutrition conscious family behavior and stunting occurrence in songan village

			Stunting Status	
			Yes	No
Nutrition Conscious	Good	Count	0	47
		Expected Count	5,0	42,0
		% within Kategori KADAZI	0,0%	100,0%
	Poor	Count	12	53
		Expected Count	7,0	58,0
		% within Kategori KADAZI	18,5%	81,5%
<i>Chi Square: Asymp Sig (2-sided) = 0,002</i>				
Odds Ratio = 0,000				

Based on table 6, the results of the statistical test show a p-value of 0.002 or $\alpha < 0.05$ which means that there is a relationship between the behavior of the Nutrition Conscious Family and the stunting, with an Odds Ratio (OR) value of 0,000 which means that if the behavior of the Nutrition Conscious Family well then there will be no toddlers experiencing stunting

4 DISCUSSION

4.1 Nutrition Conscious Family

Based on research that has been done on toddlers' families in Songan Village, the results show that the behavior of the Nutrition Conscious Family of 112 respondents is mostly in the sufficient category of 51 people (45.5%). This is because the behavior of

regularly weighing, giving exclusive breastfeeding, giving a variety of foods, and taking nutritional supplements is still in the adequate category and the behavior of using iodized salt in the less category.

Weighing the weight aims to monitor the growth of children, breastfeeding can help provide half (½) of the child's energy needs so that children should be given milk until the age of 6 months. Providing a variety of foods aims to meet the needs of carbohydrates, proteins, and fats. The use of iodized salt can help to fulfil the process of growth and development, especially the brain development of children, and the provision of nutritional supplements can complement the lack of vitamins and minerals in the body (Fikawati, Syafiq et al. 2017).

The results of this study are supported by research conducted in the working area of Gajah Demak Health Center where the majority of respondents do not behave because respondents do not provide exclusive breastfeeding, family behavior that does not consume a variety of foods, and the lack of maternal behavior to bring toddlers to weigh weight into Integrated Healthcare Center (Aisyaroh, Zulfa et al. 2014).

Another factor that can influence the behavior of Nutrition Conscious Families in the sufficient category is that community knowledge in Songan Village still lacks about the behavior of Nutrition Conscious Families. Based on the level of education, most of the respondents only graduated from Elementary School (SD), namely as many as 42 people (37.5%).

The results of this study are in line with research conducted in West Kalimantan which states that the behavior of Nutrition Conscious Families under five households with bad behavior is greater than good behavior due to the low level of knowledge from the family, where the proportion of parents' level of education is good father and most mothers graduated from elementary school or below (Hariyadi, Damanik et al. 2010).

4.2 Stunting Status

Based on research conducted on toddlers aged 24-59 months in Songan Village, of the 112 respondents, most of the children did not experience stunting as many as 100 people (89.3%) and children who experienced stunting as many as 12 people (10.7%). Twelve children who were stunted, due to the behavior of Nutrition Conscious Families, most of the citizens were in the sufficient category, as many as 51 people (45.5%), there were even some respondents who had Nutrition Conscious Family behavior in the less 14 category people (12.5%). From the above results, it can be concluded that the

provision of nutrition plays an important role as one of the things that can cause stunting.

In the first 1,000 days of a child's life, the process of growing a child becomes very fast, so it requires adequate nutrition. Nutrition is the main factor that supports the occurrence of metabolic processes in the body. Every chemical reaction that occurs in the body requires nutrients for its implementation. Nutrition problems, both deficiency or excess, can affect growth and development. Poor nutritional status during pregnancy, growth period, and early life of a child can inhibit the growth and maturation of organs, and body size is much shorter or commonly referred to as stunting (Fikawati, Syafiq et al. 2017).

The results of this study are in line with research conducted in the Work Area of the Pucang Sawit Public Health Center in Surakarta, where 12 children were stunted, this is due to the poor implementation of Nutrition Conscious Families in the majority of respondents (Apriani 2018). The results of this study are also supported by research conducted in the sub-district of Matan Hilir Selatan, Ketapang District, which states that one of the factors that can cause stunting is the behavior of the Nutrition Conscious Family.

4.3 Relationship of Nutrition Conscious Family Behavior with Stunting in Songan Village

Based on the results of the chi-square test between the Behavioral Nutrition Family variable with the stunting, the results show that there is a significant relationship between the Behavioral Nutrition Family behavior with the stunting. Where if the family has a good Nutrition Conscious Family behavior, it can reduce the risk of stunting. The results of this study indicate parenting in the fulfilment of children's nutrition has a great influence on the incidence of stunting.

The results of this study are in line with research conducted in West Kalimantan Province on the analysis of the influence of nutritionally aware family behavior on stunting in the province of West Kalimantan that there is a significant influence between the behavior of Nutrition Conscious Families with stunting. Where households with behavior of Nutrition Conscious Families (Poor KADARZI) has the opportunity to increase the risk of stunting in children under age 1.21 times greater than in households with good Nutrition Conscious Family behaviour (Hariyadi and Ekayanti 2012).

5 CONCLUSIONS

Based on the results of the study, it can be concluded that the behavior of Nutrition Conscious Families in Songan Village is mostly included in the sufficient category as many as 51 people (45.5%) with a stunting rate of 12 people (10.7%). Based on the analysis using chi-square obtained results that there is a significant relationship between the behavior of the Nutrition Conscious Family with the stunting incident in the village of Songan with a p-value of 0.002 or $<\alpha$ 0.05 and an Odds Ratio (OR) value of 0,000 which means that if Good Nutrition Conscious Family behavior can reduce the risk of stunting toddlers.

Families are expected to improve the behavior of Nutrition Conscious Families because balanced nutrition is needed in the child's growth and development process. Also, further researchers are expected to research factors that influence the behavior of Nutrition Conscious Families and other factors that influence the occurrence of stunting

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The Effect of Health Promotion through Family Approach to Community Knowledge of Clean and Healthy Living

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Abstract:

This study aims to determine the effect of health promotion through family approaches to the knowledge of people behaving clean and healthy (PHBS) in the work area of Puskesmas 1 Marga. This study uses an experimental design with a Pre-Experimental Design that uses The One Group Pre-test Post-test Design. The population used is the community in the working area of Puskesmas 1 Marga. The number of samples was 109 respondents. The sampling technique uses Stratified Sampling. Data collection uses a questionnaire that was made by researchers. Data were analysed using the Wilcoxon Rank Test statistic. This study shows that after being given health promotion, there was an increase in respondents' knowledge from 88.1% to 100%. So it can be concluded that there is a significant influence between health promotion through a family approach to community knowledge to do PHBS. It is expected that the community can apply information from health promotion in implementing PHBS.

Keywords: Health Promotion, Family Approach, PHBS

1 INTRODUCTION

Clean and Healthy Behavior (PHBS) is the spearhead for health development. PHBS is a set of behaviors that are practiced based on awareness as learning outcomes that make a person or family can help themselves in the health sector and play an active role in realizing public health (Erna and Wahyuni, 2011)

The Healthy Indonesia Program through the Family Approach (PIS-PK) launched by the Indonesian Ministry of Health as a whole sets 12 healthy family indicators, namely: families participating in the family planning program, mothers giving birth in health facilities, infants getting complete basic immunizations, healthy family infants, namely: families follow the family planning program, mothers give birth at a health facility, babies get complete basic immunization, babies get exclusive breastfeeding, toddlers get growth monitoring, TB sufferers get standardized treatment, hypertensive patients take regular treatment, people with mental disorders get treatment and are not abandoned, none of the family members smoke, the family has become a member of JKN, the family has access to clean water facilities, and the family has access or uses healthy latrines.

Implementation of the family approach is done by visiting the community to the house (door to door) to record the family following 12 healthy family indicators while providing health promotion about health problems faced by the family itself so that the family can make decisions to resolve health problems in the family and change habits the bad in the family.

Health promotion is the development of the concept of health education, which takes place in line with changes in the paradigm of public health (public health). Changes in the paradigm of public health occur, among others, due to changes in disease patterns, lifestyles, living conditions, environment, and demographics.

It is expected that from the implementation of the family approach by providing health promotion, the knowledge of the community to do PHBS increases, where knowledge can encourage changes in the behavior of a person or individual so that the provision of health promotion can increase public knowledge and also increase the awareness of a person or individual to change behavior.

Coverage of households conducting PHBS according to the 2017 Provincial Health Service in the Prov. Health Profile Bali is the lowest, Tabanan with a percentage of 76.6% below 80%. Percentage of households with clean and healthy life behavior in Tabanan 2016 in the health profile District. Tabanan

is the lowest at Marga Health Center 1 at 8.6%. This identified that the majority of community behavior in the working area of Puskesmas 1 Marga had not implemented PHBS well as much as 91.4%. The high number of PHBS implementation that is not optimal can be due to the low level of knowledge (Wahyuni, 2011) also supported by the results of research conducted by Sekar et al., 2016 stating age and level of knowledge related to community PHBS Based on the description above, researchers are interested in researching "The Effect of Health Promotion Through Family Approaches Against Public Knowledge Behind Clean and Healthy Lifestyle in the Work Area of Puskesmas 1 Marga, Tabanan".

2 METHODS

This study uses an Experiment with a Pre-Experimental Design that uses The One Group Pre-test Post-test Design. The population used is the community living in the working area of Tabanan 1 Marga Puskesmas. The number of samples was 109 respondents. The sampling technique in this study was probability sampling using stratified sampling and simple random sampling. Data collection using a questionnaire.

3 RESULTS

The results obtained in this study regarding the effectiveness of health promotion through a family approach to the knowledge of people behaving a clean and healthy life in the working area of Puskesmas 1 Marga Tabanan in 2019 are:

Table 1: Frequency Distribution of Characteristics of Community Respondents in the work area of Puskesmas 1 Marga Tabanan in 2019 (n = 109)

Characteristics	Frequencies (n)	Percentage (%)
Age		
20-30 years	9	8.3
31-40 years	30	27.5
41-50 years	49	45.0
>50 years	21	19.3
Sex		
Male	56	51.4
Female	53	48.6
Education Background		
Nope	11	10.1
Unfinished Elementary	7	6.4

School	Frequencies (n)	Percentage (%)
Elementary School	14	12.8
JHS	13	11.9
SHS	48	44.0
College	16	14.7

Based on table 1 it can be explained that the majority of respondents had 41-50 years of age of 49 (45%), the majority of respondents were male - as many as 56 (51.4%), and most had the last education graduated from high school/equivalent as much 48 (44%).

Table 2: Frequency Distribution of Community Knowledge Levels about PHBS before Health Promotion Is Given Through the Family Approach

Level of Knowledge	Frequencies (n)	Percentage (%)
High	96	88.1
Low	13	11.9

Based on table 2 shows that the frequency distribution of public knowledge about PHBS before being given health promotion through a family approach using book flat 12 indicators of healthy families in the working area of Puskesmas 1 Marga, has high knowledge as much as 96 (88.1%) and those who have low knowledge as much as 13 (11.9%). Whereas in the statement, most respondents answered wrongly in negative statements, people with mental disorders do not need to get enough medication left alone at home as much as 78 (71.6%).

Table 3: Frequency Distribution of Community Knowledge Levels about PHBS after Health Promotion Through Family Approach.

Level of Knowledge	Frequencies (n)	Percentage (%)
High	109	100
Low	0	0

Based on table 3 shows that the level of public knowledge about PHBS after being given health promotion through a family approach using booklet 12 indicators of healthy families all respondents have high knowledge of 109 (100%).

Table 4: Data Analysis Test Results Using the Wilcoxon Ranks Test (n = 109)

Wilcoxon Rank Test	Result
Negative Ranks	0 ^a
Positive Ranks	68 ^b
Ties	41 ^c
Total	109

- a. Total post test score <total score pre-test knowledge
- b. Total post-test score > total knowledge pre-test score
- c. Total post-test score = total score of pre-test knowledge

Based on table 4 shows the results of Wilcoxon Signed Ranks Test statistical analysis results obtained negative ranks 0a this shows after being given treatment (health promotion through the family approach) no respondent has decreased scores, while the results of positive ranks 68b it shows that after being given as much treatment 68 respondents experienced an increase in knowledge about clean and healthy living behavior through a family approach using 12 indicators of a healthy family. The results of ties 41c indicate that as many as 41 respondents had the same score between before treatment and after treatment.

Table 5: Test Statistics

Z	-7.292 ^b
Asymp. Sig. (P-value)	.000

Based on table 5 of the results of the Wilcoxon Signed Ranks Test, statistics obtained p-value = 0.001 < α 0.05. This shows that there is an influence of health promotion through family approach to the knowledge of people behaving clean and healthy life in the work area of Puskesmas 1 Marga Tabanan, followed by calculating the effect size to see how much influence the health promotion through family approach by calculating using formulas.

Based on table 5 of the results of the Wilcoxon Signed Ranks Test, statistics obtained p-value = 0.001 < α 0.05. This shows that there is an influence of health promotion through family approach to the knowledge of people behaving clean and healthy life in the work area of Puskesmas 1 Marga Tabanan, followed by calculating the effect size to see how much influence the health promotion through family approach by calculating using the formula

4 DISCUSSION

Public Knowledge of Clean and Healthy Living Behavior Before Providing Health Promotion Through a Family Approach

Knowledge is a process of remembering and re-knowing objects that have been learned through the five senses in a particular field as well. The level of knowledge is the level of how deep a person can

face, explore, deepen attention to information obtained from various sources.

The results showed the frequency distribution of community knowledge about PHBS before being given health promotion through a family approach in the working area of Puskesmas 1 Marga, from 109 respondents that 96 respondents had high knowledge and 13 respondents had low knowledge. This is because before being given health promotion through a family approach, most respondents answered correctly on statements about family planning (KB) indicators, maternity indicators at health facilities, exclusive breastfeeding indicators, and indicators for weighing children under five. However, the results obtained also showed three indicators that were often answered incorrectly by respondents, namely, indicators of people with mental disorders, health insurance indicators, and indicators of tuberculosis. Several factors including age can cause researcher's assumption that there is still a low respondent's knowledge, and the level of education of the respondent wherein this study the average age of the respondent is in the range of 41-50 years, old age will cause a decrease in speed in receiving information and deterioration in power to remember someone and the last education of some respondents were not in school and did not complete elementary school, the level of last education can affect a person's thinking patterns of information.

This study is in line with (Darmawan, 2013) entitled the effect of health education on public knowledge about hypertension, where the results obtained are less than 45 respondents (93.8%) before counselling and followed by respondents who have good knowledge, namely three people (6.3%). This is because most of them are elementary school graduates and are > 50 years old so that the ability in terms of education level, which is lacking results in information about hypertension very poorly owned, besides that the age factor also affects the ability of individuals to receive information well.

Public Knowledge of Clean and Healthy Living Behavior After Being Given Health Promotion Through a Family Approach

The results showed the frequency distribution of community knowledge about PHBS after being given a health promotion about PHBS through a family approach using booklet 12 indicators of healthy families in the working area of Puskesmas 1 Marga, out of 109 respondents (100%) all respondents had high knowledge. Researcher's assumptions that cause a high level of overall knowledge of respondents are the use of appropriate methods and methods of delivery in providing health promotion itself, the method used in health

promotion is a family approach wherein practice researchers visit directly to the family's own home and use booklet in providing promotions health, the time needed for researchers to provide health promotion in one family for ± 15 minutes. The family approach method can also be done by discussing with respondents about indicators that are not yet understood by the respondent or the family itself.

This study is in line with research conducted by (Darmawan, 2013) entitled the effect of health education on public knowledge about hypertension in which the results obtained after counselling are the level of knowledge of all respondents as many as 48 people (100%) have a good level of knowledge. This can be caused by the use of media and interesting ways of delivering information so that it can increase the enthusiasm of the public to know about hypertension, even though most of the respondents' age factors are categorized as elderly.

This study is also in line with research conducted by (Lubis, Z. S., Akbar, Lubis, N.L., Syahril, 2013) entitled the effect of counselling on lecture, and discussion methods to increase children's knowledge and attitudes about PHBS where the results obtained from respondents' knowledge and attitudes with discussion methods are 22.47 and 14.00 greater its value is compared with the value of knowledge and attitudes of respondents with the lecture method that is 21.74 and 13.47. This is because, in the discussion method, all participants were actively involved in expressing their opinions and experiences, and discussed the PHBS material distributed until they reached an appropriate conclusion. The principle of learning by connecting or associating a stimulus with old experiences or behaviors, then the message will be more easily accepted and understood.

The Effect of Health Promotion through the Family Approach Against Community Knowledge of Clean and Healthy Life Behavior in the Work Area of Marga 1 Puskesmas

The results of the Kolmogorov Smirnov normality test are the results obtained in the pre-test 0,000, and the system eliminates the post-test scores because the results obtained are constant. These results indicate that the data are not normally distributed because of the p-value $< \alpha 0.05$ ($p < \alpha 0.05$). If the data obtained is not normally distributed, then the statistical test used is the Wilcoxon Rank Test.

The results of the study are based on analysis with the Wilcoxon Rank Test statistic obtained p-value = 0.001 $< \alpha 0.05$. This shows that H_0 is accepted, which means that there is an influence of health promotion through family approaches to the

knowledge of people behaving clean and healthy life in the working area of Puskesmas 1 Marga Tabanan. Respondents' knowledge about PHBS using 12 indicators of healthy families has increased. The researchers assume that this is caused by the use of the family approach method and the interesting way of conveying information using booklet so that it can increase respondents' enthusiasm to know about the information conveyed. The information provided emphasizes more on the indicators that were answered, not according to the respondent so that the respondent's knowledge of the indicator increases.

This study is in line with research conducted by (Darmawan, 2013) entitled the effect of health education on public knowledge about hypertension obtained p-value = 0.001, which states that there is an influence, and there is a significant difference in knowledge between before counselling and after counselling.

The mechanism for the existence of meaningful differences in knowledge is due to the information and communication factors that influence knowledge formation. Information provided directly or indirectly influences increasing knowledge, forming opinions, and people's trust. In the field of health information can be obtained through face-to-face with the conveyor of information such as health workers, community leaders, government officials who support and can also be obtained from various mass media (health promotion).

5 CONCLUSIONS

Based on the results of the study, it can be concluded:

1. Community knowledge about PHBS before being given health promotion through a family approach in the working area of Puskesmas 1 Marga in the category of high knowledge 96 (88.1%) and those who have low knowledge as many as 13 (11.9%), but there are indicators that Many respondents answered wrongly, that is an indicator of people with mental disorders 78 (71.6%).
2. Knowledge after being given health promotion about PHBS through a family approach using booklet 12 indicators of healthy families. In the working area of Puskesmas 1 Marga, out of 109 respondents (100%), all respondents had high knowledge.
3. There is an influence of the effect of giving health promotion through a family approach to the knowledge of the community to behave in a clean and healthy life in the working area of Puskesmas 1 Marga Tabanan.

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The Effect of Health Education on Knowledge, Attitudes and Belief about Acute Coronary Syndrome

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Abstract:

Death caused by Acute Coronary Syndrome (ACS) remains high because people do not have sufficient knowledge in interpreting the perceived sign and symptoms. This has an impact on the lack of people's attitudes and belief in seeking health services. Providing information is a key factor in increasing knowledge, attitude, and belief toward ACS. This study aimed to determine the effect of health education on knowledge, attitudes, and belief about the acute coronary syndrome in Public Health Centre Tabanan III. This research implemented a pre-experimental design. There were 38 samples involved in this research, which were selected through purposive sampling. Health education was provided through 30 minutes' presentation with the media of brochure and flyer. ACS Response Index questionnaire was used to collect the data. The method of data collection in this study was a self-completed questionnaire and analysed by using the Wilcoxon Signed Rank Test. Among 38 respondents, 55.3% were male. The median age was 37.2 years old. The result of the Wilcoxon Signed Rank Test showed there was a statistically significant increase in knowledge, attitudes, and belief after they were given health education. On the domain of knowledge, $z = -5.40$, $p < 0.001$, $r = 0.61$, the median score increased from pre-program (Md = 10) to post-program (Md = 16). On the domain of attitudes, $z = -5.38$, $p < 0.001$, $r = 0.61$, the median score increased from pre-program (Md = 8.5) to post-program (Md = 17). On the domain of belief, $z = -5.40$, $p < 0.001$, $r = 0.62$, the median score increased from pre-program (Md = 18) to post-program (Md = 21). Health practitioners are suggested to provide health education more often about the non-communicable disease, especially about ACS.

Keywords: Knowledge, Attitudes, Belief, Acute Coronary Syndrome

1 INTRODUCTION

Cardiovascular disease is the number one cause of death in the world from 2000 to 2016 (WHO, 2016). Globally, in 2000 counted total deaths from cardiovascular disease were 14 million, in 2005 as many as 15 million, in 2010 as many as 16 million, and in 2016 as many as 17 million (WHO, 2018). In Indonesia, based on data from the World Health Organization - Noncommunicable Disease (NCD) country profiles 2018, in 2016, the death rate due to non-communicable diseases was estimated at 73% of all deaths, 35% of which were caused by cardiovascular disease (WHO, 2018).

As many as 77% of deaths from heart disease occur outside the hospital (Mosca *et al.*, 2011). Deaths due to heart disease are mostly caused by people misinterpreting symptoms that are felt to be related to heart disease (Alfasos *et al.*, 2016).

Previous studies conducted showed that around 45.2% of patients reported they did not associate the symptoms with heart disease. Also, patients who first experience cardiac symptoms prefer to wait until the pain disappears (48.4%) (Koc, Durna and Akin, 2017).

Community error in interpreting symptoms that are felt can be a factor influencing community decisions in seeking health services. Therefore, the lack of health information received by ordinary people is the cause of community delays in receiving care (Taghaddosi *et al.*, 2010). According to Banharak *et al* (2018) people need to know how to respond appropriately when a heart attack occurs, but that is not enough to prevent delays in treatment because on average the main problem remains on people's knowledge in recognizing the symptoms of heart disease (Banharak *et al.*, 2018). The importance of providing health education in

improving knowledge, attitudes, and belief is evidenced by research conducted by Buckley *et al* (2007) with the results of the study which showed an increase in knowledge in the group given the intervention in the form of education and counselling for three months to 12 months (Buckley *et al.*, 2007). However, there were no significant differences in attitudes and belief in both the intervention and control groups. Through the provision of health education, information and new knowledge will be obtained by the community so that the goal of health education is to be able to change the behavior of individuals or communities in the health sector can be achieved (Induniasih and Wahyu, 2017). Based on preliminary studies conducted at the Tabanan III Health Center, the results show that health education has never been done about non-communicable diseases, especially regarding acute coronary syndrome.

Based on the description above, the researcher considers that it is important to research the effect of providing health education on community knowledge, attitudes, and belief-related to the acute coronary syndrome in the work area of Tabanan III Health Center. The purpose of this study is to determine the effect of providing health education to the level of knowledge, attitudes, and belief about Acute Coronary Syndrome in Tabanan III Health Center.

2 METHODS

This research is a quantitative study with a research design using the pre-experimental design method with the one-group pre-test-post-test design research design. This design is used to compare the results of interventions in a group, measured before and after the intervention. The population in this study were all people in the working area of Tabanan III Health Center, with a sample of 38 respondents. Samples were obtained using a purposive sampling technique.

Inclusion criteria in this study are people aged 20 - 45 years, do not have a family with a history of heart disease, can read and write in Indonesian, and are willing to be respondents and sign informed consent. The exclusion criteria in this study are people who work as health workers, moderate or after undergoing cardiac treatment, and were not present when providing health education.

This study assesses the ethics of research as a matter of great concern when researching, such as informed consent, which is a statement of the respondent's consent statement following this

research. This study was also approved by the Research Ethics Committee Faculty of Medicine, Universitas Udayana/Sanglah Hospital Denpasar.

In this study, the data collection technique used is the Psychometric Evaluation of the Acute Coronary Syndrome (ACS) Response Index questionnaire that has been modified and tested for validity and reliability. The validity test used is face validity with the results of a valid questionnaire used as a measurement tool in knowing people's knowledge, attitudes, and belief about ACS. For the reliability test, the results obtained on the knowledge, attitude, and questionnaire of the community regarding ACS showed acceptable attitudes with Cronbach's Alpha (0.744) and for belief expressed questionable with Cronbach's Alpha (0.619).

The questionnaire used consisted of 16 statements about knowledge consisting of 8 positive statements and eight negative statements. For attitude consists of 5 statements, which are all positive statements and seven statements about belief consisting of 2 positive statements and five negative statements. The knowledge variable uses the Guttman scale, while the statement of attitude and belief uses the Likert scale.

Each prospective respondent who met the inclusion criteria in this study explained the intent and purpose of the study and was asked to sign informed consent. Before being given health education, respondents were given a pre-test questionnaire. Furthermore, respondents were given health education through flipchart and flyer media for 30 minutes and ended with respondents being given a post-test questionnaire. After the data is collected, data analysis is done using SPSS Statistics for Windows 20. To find the frequency in each characteristic of respondents used descriptive statistics. The value of knowledge, attitudes, and belief during the pre-test and post-test is also assessed using descriptive statistics by finding the median, minimum, and maximum values. The Wilcoxon signed-rank test was used to see the effect that health education had had on the knowledge, attitudes, and belief of the community before and after the intervention was given. The level of significance for statistical analysis is $p < 0.05$.

3 RESULTS

3.1 Respondents

Of the total 38 respondents, the majority of respondents were male (n = 21; 55.3%), and had high school education (n = 15; 39.5%). The average age of respondents was 37.2 ± 5.5 years. The characteristics of respondents can be seen in Table 1.

Table 1. Characteristics of Respondents

Characteristics of Respondents	N (%)
Gender	
Male	21 (55,3)
Female	17 (44,7)
Educational Background	
No education	0 (0)
Elementary School	1 (2,6)
Junior High School	4 (10,5)
Senior High School	15 (39,5)
Diploma	8 (21,1)
Bachelor	10 (26,3)

3.2 Knowledge, Attitudes and belief

The analysis showed that the median, minimum, and maximum values of respondents' knowledge, attitudes, and belief after being given health education increased significantly (Table 2).

Table 2. Median, Minimum and Maximum Values)

Variable	Pre Test			Post Test		
	Md	Min	Maks	Md	Min	Maks
Knowledge	10	6	13	16	14	16
Attitude	8,5	5	16	17	11	20
Belief	18	14	25	21	16	26

4 DISCUSSION

4.1 Knowledge Before and After Health Education

The median value of public knowledge before being given health education is close to the minimum value, which means that community knowledge about ACS is still lacking. More than half of the respondents thought that a rapid heartbeat or palpitations, dizziness felt as if they wanted to pass out, and numbness or tingling in their arms or hands were signs and symptoms of ACS. This result was

also found in a previous study conducted by (O'Brien *et al.*, 2013).

Public knowledge related to the signs and symptoms of ACS can also be said to be lacking because the majority of the public answers more correctly related to atypical signs and symptoms compared to the typical signs and symptoms of ACS. In recognizing typical signs and symptoms, more than half of respondents were unable to answer correctly on 3 of the six typical signs and symptoms of pain that radiated to the left arm, neck, shoulders, jaw, and back, loss of consciousness, or fainting, and nausea or vomiting. This is in line with research conducted by Albarquoni *et al* (2016), Kim *et al* (2016), and Nouredine *et al* (2010).

For the three other typical signs and symptoms, the majority of respondents were able to answer correctly. These signs and symptoms are chest pain that feels heavy, pressure and burning, shortness of breath, and cold sweat. This is in line with research conducted by Alfasfos *et al* (2016), Banharak *et al* (2018), Kim *et al* (2016), and (Alfasfos *et al.*, 2016); (Banharak *et al.*, 2018), (Kim *et al.*, 2016), and Nouredine *et al* (2010).

The researcher thinks that this is due to the majority of the respondents' final education, which is a secondary school, so it is likely that the information possessed by respondents related to ACS is still limited. This is in line with research conducted by Alfasfos *et al* (2016). Another factor that causes the lack of public knowledge is the lack of information received by the public from health workers, especially at the Puskesmas level about non-communicable diseases, especially ACS.

After being given health education, almost all people can answer correctly about the typical and atypical signs and symptoms of ACS. However, in the typical signs and symptoms such as shortness of breath and loss of consciousness or fainting, there are still people who answer that the signs and symptoms are not typical signs and symptoms of ACS. The results of this study are in line with research conducted by Eckman *et al* (2012), McKinley *et al* (2012), O'Brien *et al* (2014), where an increase in respondents' knowledge after being given intervention in the form of health education.

The provision of health education can have a positive influence on increasing the knowledge, awareness, willingness, and ability of people to live healthily and actively participate in health efforts (Ali, 2010). In the provision of health education, there are several principles, one of which is the success of health education is assessed if there is a change in knowledge in the community, which in

this study proved an increase in the value of community knowledge after being given health education

4.2 Attitudes before and after health education

The median value for attitude variables before the provision of health education about ACS also leads to a minimum value, which means that community attitudes related to ACS are still lacking. This is because the community still does not feel confident in recognizing the signs and symptoms of ACS. This is in line with research conducted by Alfasfos *et al* (2016), O'Brien *et al* (2013) where only a few respondents were able to recognize the signs and symptoms of ACS in others, but more than 40% of respondents felt confident that they could recognize the signs and symptoms of ACS if it happened to themselves. The results were inversely found in research conducted by (O'Brien *et al.*, 2013) where the majority of respondents answered confidently that they could distinguish signs and symptoms of ACS from other medical problems. Many people are still unsure about differentiating ACS from other medical problems, possibly because people do not know for certain what ACS is, and also, the many myths about ACS in the community can trigger the inadequate attitudes of the community.

The attitude of the community in seeking health assistance is also still lacking. This can happen because the respondent's knowledge is still lacking about ACS, so that makes people feel unsure in providing first aid to someone with ACS. This is following the theory where when a person does not get a stimulus or stimulus, there is no change in his attitude or behavior. In this case, the stimulus that has not been obtained is in the form of information related to the ACS (Notoadmojo, 2012),.

The results of research on community attitudes after being given health education found that the majority of respondents answered confidently in recognizing signs and symptoms of ACS if it occurred to themselves or others, we're confident in being able to distinguish ACS from other medical problems, and we're confident in being able to know first aid when ACS occurred. However, no significant improvement was seen in the response of the community in providing first aid when ACS occurred. This is in line with the theory put forward by Notoadmojo (2012), where the community has reached the second level of attitude that is responding (responding). At this level of attitude, the community has been able to give an appropriate

answer if asked, which is why there has been an increase in community attitudes after being given health education (Notoadmojo, 2012). This is also supported by research conducted by Eshah, Bond and Froelicher (2010), O'Brien *et al* (2014), McKinley *et al* (2014). Another thing that might cause an increase in community attitudes about ACS is that community knowledge has increased because health education has been given about ACS. The same results were also stated in research conducted by Eshah, Bond and Froelicher (2010), O'Brien *et al* (2014), where respondents who have good knowledge about the signs and symptoms of ACS, it will be good to have a good attitude related to ACS

4.3 Belief before and after health education

In the variable of belief, the majority of people have the right in acting when faced with the ACS situation by going directly to the hospital. The results of this study are in line with research conducted by O'Brien *et al* (2013) which states that 93% of respondents believe that if they experience chest pain, they must immediately go to the hospital (O'Brien *et al.*, 2013). Inversely proportional to the research conducted by Noureddine *et al* (2010) which states that only 21% of respondents answer correctly when signs and symptoms of ACS occur, so they must immediately go to the hospital (Noureddine *et al.*, 2010).

In this study, it was also seen that people were more believing to be escorted by someone compared to using an ambulance to go to the hospital. This is in line with research conducted by Koc, Durna and Akin (2017) where more than half of respondents chose to be taken by someone to the hospital compared to an ambulance (Koc, Durna and Akin, 2017). Inversely with the results of research conducted by O'Brien *et al* (2013) where the majority of respondents prefer to be sent by ambulance to the hospital. The number of respondents who believe more to be sent to the hospital by someone compared to an ambulance can cause delays in patients receiving health services (O'Brien *et al.*, 2013). So, in this case, the role of family or the closest person in knowing the signs and symptoms of ACS is very important to reduce the time delay in handling at the hospital. Providing education to the public related to signs and symptoms of ACS is considered to be able to reduce the delay in handling ACS in hospitals.

Before going to the hospital, many people responded that they would convince themselves first

when the signs and symptoms of ACS occurred. This is because many people are still thinking about the hospital costs that will be incurred. The results of this study are inversely proportional to the research conducted by Alfasfos *et al* (2016) where the majority of respondents no longer think of the costs incurred if there are signs and symptoms of ACS (Alfasfos *et al.*, 2016). The income received by the family may cause this is only able to meet their daily needs, or the community does not have health insurance. Also, the majority of respondents said that they did not yet have health insurance as BPJS, which caused the community to be slow in seeking health services.

Community belief after being given health education shows that there are some improvements in the way people agree to go to the hospital immediately when they are sure or not sure they have chest pain and will not wait for the duration of chest pain to be felt for up to 15 minutes. Also, respondents no longer think about the cost of medical care if they have experienced signs and symptoms of ACS, they will immediately go to the hospital, and the majority of respondents are not ashamed to go to the hospital when they think they have ACS, but it turns out it is not ACS. However, in terms of accommodation to the hospital, many people prefer to be taken to the hospital by someone compared to an ambulance.

The results of this study are in line with research conducted by McKinley *et al* (2009), O'Brien *et al* (2014) which states that after being given intervention in the form of education and counseling about the signs and symptoms of ACS, there was a significant increase in respondents' belief. Different results were found in studies conducted by Eshah, Bond and Froelicher (2010) where the posttest scores in the intervention group showed an increase in the value of belief but not significantly compared to the control group (Eshah, Bond and Froelicher, 2010).

The researcher believes that an increase in respondent confidence after being given health education is because the respondent has received information related to appropriate actions when faced with the situation of himself or others experiencing ACS. This is also because respondents' knowledge about ACS has increased so that respondents can choose the right action if later faced with the situation themselves or others experience ACS.

4.3 Effects of providing health education on community knowledge, attitudes and belief

In knowing the effect of providing health education on knowledge, attitudes, and belief using the Wilcoxon sign rank test, the results obtained $p < 0.001$ for all variables. In the knowledge variable, the value of $Z = -5.400$ and the value of $r = 0.61$. In the attitude variable the value of $Z = -5,381$ and the value of $r = 0,61$. In the confidence variable, the value of $Z = -5.406$ and the value of $r = 0.62$. The results of this analysis can be seen in Table 3.

Table 3. Wilcoxon Sign and Rank Test Statistical Test Results.

Test Statistics	
	Total knowledge post score - Total knowledge score
Z	-5.400b
Asymp. Sig. (2-tailed)	.000
Test Statistics	
	Total attitude post score - Total attitude score
Z	-5.381b
Asymp. Sig. (2-tailed)	.000
Test Statistics	
	Total belief post score - Total belief score
Z	-5.406b
Asymp. Sig. (2-tailed)	.000

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.

Health education is an intellectual, psychological, and social activity to improve a person's ability to make decisions that can later affect the welfare of individuals, families, or the community (Maulana, 2009). One of the goals of the provision of health education is to increase knowledge, awareness, willingness, and ability of the community to live healthily and actively participate in health efforts.

Based on the Wilcoxon Sign Rank Test statistical test, it was found that there was an influence of the provision of health education on community knowledge, attitudes, and s about ACS in Tabanan III Health Center. This study found significant differences in median values towards the highest values in community knowledge, attitudes, and s before and after health education was given about ACS.

According to Mosca *et al* (2011) efforts to provide health education are very important because if knowledge increases, one's awareness of risk factors for heart disease will increase (Mosca *et al.*, 2011). This will also improve people's health and lifestyle. Health promotion and health education strategies are really needed to increase public awareness about the symptoms of ACS, especially in the elderly and people with low levels of education (Kim *et al.*, 2016). The provision of health education is provided to prevent delays in providing first aid when perceived signs and symptoms of ACS and can reduce mortality and morbidity related to ACS (Banharak *et al.*, 2018).

The results of this study are in line with research conducted by McKinley *et al* (2009) and O'Brien *et al* (2014), which mentions the influence exerted by interventions on changes in people's knowledge, attitudes and beliefs about ACS. The researcher believes that the higher the community's knowledge about ACS, the better the attitude and belief of the community. Knowledge, good attitude, and belief will improve the quality of life of the community and can also influence the change in good health behavior to recognize, prevent, and give first aid to people experiencing ACS. This will reduce the number of delays in receiving treatment, morbidity, and mortality in the community. With the results of this study, it is expected that students or other health practitioners to provide health education to the public about non-communicable diseases, especially about ACS.

The limitation of this study is that this study only uses the usual health education media, namely using a flipchart. This study only discusses public knowledge, attitudes, and beliefs about ACS, while the factors that influence knowledge, attitudes, and beliefs are not examined. This research was only conducted on 38 people coming to the Tabanan III Community Health Center so that the results of this study could not be generalized.

5 CONCLUSIONS

There is an influence given by health education on community knowledge, attitudes, and beliefs about ACS in Puskesmas Tabanan III.

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The Relationship of Health Belief Model Components to Adolescent Readiness to Conduct Voluntary Counselling Testing

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Abstract:

Increased cases of HIV / AIDS in Denpasar, Bali occur in various ages and sexes. Teenagers are part of the risk groups because many risky behaviors are vulnerable such as free sex and drugs. Counselling and socialization by the government and health workers have been maximally carried out. This should be able to increase the willingness of adolescents to do VCT. However, the use of VCT still lacks in adolescents. There were only 87 beneficiaries of VCT from 1,608 total VCT patients in October 2017. Objective: To determine the relationship of HBM components to the willingness of adolescents to do VCT. Method: This study used a correlational analytic design with a cross-sectional approach. Sampling uses nonprobability sampling with stratified techniques and simple random sampling. The population of this study was 324 students of SMAN 6 Denpasar with a sample of 120 students of class XI. Data collection using Champion's questionnaire for mammograms as many as 32 statements. Data were tested with the Spearman's correlation test and using SPSS version 23.0 for MacBook. Results: The results of the univariate study showed that respondents had high perceptions of seriousness, vulnerability, benefits, driving factors, and self-confidence, while perceptions of obstacles were low. Bivariate results indicate that all components of HBM have a relationship with adolescent willingness to do VCT. Conclusion: There is a relationship between each component of HBM with the willingness of adolescents to do VCT. Peer function should not only be in KSPAN but optimize other extracurricular activities so that the packaging of HIV / AIDS material is more interesting.

Keywords: VCT, HBM, Adolescents, HIV / AIDS

1 INTRODUCTION

Cases of Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) continued to increase in Indonesia in 2016 by 620,000 patients and increased in 2017 to 630,000 people with HIV / AIDS (UNAIDS Indonesia 2017).

The highest number occurred in the age range of 15 years and over, namely 620,000 patients in 2017 (UNAIDS Indonesia 2017). Bali Province is one of the provinces experiencing an increase in people living with HIV. From 2015 to 2017, there was an increase of 413 cases of HIV. An increase in HIV cases also occurred in the city of Denpasar, as many as 107 HIV cases were found during 2015-2017 while the number of people living with cumulative AIDS in Denpasar City until 2017 was 4,689 patients (Ditjen P2P Kementerian Kesehatan Indonesia 2018).

The age range of people living with HIV / AIDS is found in the productive age. According to the Ministry of Health of the Republic of Indonesia Ministry of Health Republic of Indonesia 2018, 69.2% of HIV cases were found in the 25-49-year age group and 16.7% in the 20-24-year age group. AIDS cases were dominated at the age of 20-29 years by 32.5% and 30-39 years by 30.7%. The age of people living with AIDS in Denpasar City, 74.54%, is at the age of 25-49 years (Dinas Kesehatan Kota Denpasar 2017).

An increase in people with AIDS at the age of 20-29 years, which means that sufferers have been infected since the previous 5-10 years, namely in adolescence (Irawati and Djufri 2017). In adolescence, curiosity about problems around sex is high and has a desire to lure the opposite sex (Maharani and Wulanyani 2018). This triggers the occurrence of free sex among teenagers. The Indonesian Child Protection Commission (KPAI)

and the Ministry of Health in October 2013 (Suartha, Amrita et al. 2017) showed that around 62.7 percent of teenagers in Indonesia had had sex outside of marriage. Problems related to adolescent behavior and reproduction, such as increasing cases of sexually transmitted diseases, especially HIV / AIDS (Pratiwi and Basuki 2011).

VCT program or voluntary HIV counselling and testing is a counselling process that takes place before, during, and after a person has a blood test to find out HIV infection. VCT aims to make someone aware of the patient's health condition early on (BKKBN and UNESCO 2012).

Availability of access to VCT and public awareness to do VCT is key so that patients with HIV / AIDS receive antiretroviral therapy (ARV) and prevent transmission with behavioral changes (WHO;UNAIDS 2017). VCT has an important role in reducing HIV / AIDS transmission. The reason for conducting VCT was because the test provided benefits (89.4%), knowing HIV status (89.7%), preventing the spread of the virus (34.7%), and protecting themselves from infection (27.8%) (Mwangi, Ngunjiri et al. 2014).

Komisi Penanggulangan AIDS (2015) states in the 2015-2019 National Strategy and Action Plan that the age below 25 years is lower in taking an HIV test. In October 2017, only 87 out of 1,608 adolescents did VCT, globally in 2017 in Denpasar City, only 73.5% of all people with HIV did VCT. The lowest age range for VCT is 15-19 years compared to age 20-50 years (Dinas Kesehatan Kota Denpasar 2017). Low willingness to do VCT is a low perception of the risk of HIV / AIDS, coping that is not good if the test results are positive, and the presence of stigma (De Wet and Kagee 2018).

Low perception about the risk of HIV / AIDS causes individuals not to prevent HIV / AIDS through the VCT examination. Thus, the approach used is the Health Belief Model (HBM), which is one of the theoretical approaches in preventing HIV / AIDS (Purwaningsih, Misutarno et al. 2017). The concept of HBM is that individual perceptions or beliefs determine health behavior about a disease and strategies that can be taken to prevent the disease Honchbaum, 1958 in Raingruber (2014). Malachi in 14 states that HBM consists of six factors, including the perception of susceptibility to disease (perceived susceptibility), perception of seriousness towards health threats (perceived severity), perceived benefits and obstacles to changes in health behavior (perceived benefits and barriers), self-efficacy, and cues to action.

Research with the concept of HBM on HIV / AIDS found low access to VCT by students due to low perception of vulnerability in themselves (Buldeo and Gilbert 2015). Then a similar study stated high perceptions of vulnerability and high perceptions of obstacles caused a low willingness of students to do VCT. On the other hand, students with perceived benefits A high level indicates a better willingness to do VCT (Abebe and Mitikie 2009). In the Nareswara, Murad et al. (2016) study, male respondents showed that the most influential HBM factors in the willingness to do VCT were perceptions of vulnerability, perceived perceptions, and driving factors.

Based on the results of research on the influence of HBM factors on VCT that are diverse, the high cases of HIV / AIDS in the city of Denpasar, and the low number of adolescents in conducting VCT, underlie researchers to research the willingness of adolescents to do VCT.

2 METHODS

This research is a type of descriptive-analytic study with a cross-sectional design. The study was conducted in February 2019. This study received ethical clearance from the Ethics Commission of the Faculty of Medicine, the University of Udayana, with letter number 236 / UN14.2.2.VII.14 / LP / 2019. The confidentiality of respondents is still carried out at the time of the study and after the study.

The study targeted adolescents aged 17-19 years at State Senior High School (SMAN) 6 Denpasar. SMAN 6 Denpasar was chosen because it is located in the South Denpasar area with the highest number of HIV cases in Denpasar, which is 70 cases (Ditjen P2P Kementrian Kesehatan Indonesia 2018). Also, the location of SMAN 6 Denpasar is in Sanur which is easy to access the night world

The number of samples using the rule of thumb in determining the multivariate analysis sample. The recommended number is 20 times more than the number of independent variables. In this study, there are six independent variables, so the number of samples is 120 people. The sampling technique used is stratified random sampling and simple random sampling.

Data collection was carried out by modifying Champion's questionnaire for mammograms in Indonesian with a Likert scale. The Cronbach Alpha questionnaire was 0.731 for perceived vulnerability, 0.739 for perceived seriousness, 0.795 for perceived

usefulness, 0.804 for inhibited perception, 0.795 for motivating factors, and 0.7700 for self-confidence. This instrument consists of 32 items. This instrument examines six determinants of attitudes based on the Health Belief Model concept of willingness to do VCT, namely: 1) perception of vulnerability, 2) perception of seriousness, 3) perception of benefits, 4) perception of obstacles and 5) motivating factors and 6) self-confidence. The question items are each six items for each perception and four each for the perception of vulnerability and self-confidence.

Checks have been carried out before data analysis. Data were analysed using SPSS 23 for MacBook with univariate analysis to determine the high and low values of each perception. The bivariate analysis used the Spearman rho statistical test to determine the relationship of each HBM component to VCT availability.

3 RESULTS AND DISCUSSION

Table 1: Distribution of HBM components

	HIGH	LOW
	f (%)	f (%)
1. Seriousness Perception	106 (88,3)	14 (11,7)
2. Vulnerability Perception	67 (55,8)	53 (44,2)
3. Benefits Perception	100 (83,3)	20 (16,7)
4. Obstacle Perception (Abebe and Mitikie 2009)	30 (25,0)	90 (75,0)
5. Push Factor	90 (75,0)	30 (25,0)
6. Self-Confidence	72 (60,0)	48 (40,0)

The results of research conducted at SMAN 6 Denpasar showed that all perceptions available on HBM gave good results. Perception of seriousness is obtained as many as 106 respondents (88.3%) have a high perception of seriousness, which means students think that HIV / AIDS infection is a serious disease. The perception of high seriousness is caused by respondents being exposed to information about HIV /AIDS quite often. Research conducted at a high school in Africa showed the same results, namely the high perception of the seriousness of the respondents and stated respondents with grade 11

level had access to enough information to improve perception (Abebe and Mitikie 2009).

The perception of vulnerability obtained high results, as many as 67 respondents (55.8%) have a high perception in SMAN 6 Denpasar. The perception of high vulnerability is due to the views of respondents who consider HIV / AIDS infection to be severe, thereby increasing self-awareness to remain vigilant. Research Nareswara, Murad et al. (2016) which states that vulnerability depends on the psychological individual in viewing HIV / AIDS when reflected on oneself and shows the results of the high perception of vulnerability in men like men in the Bandung area.

The perception of benefits obtained by the results of 100 respondents (83.3%) has a high perception of the benefits of VCT in SMAN 6 Denpasar. The high perception of benefits is due to knowledge about the benefits of VCT and HIV / AIDS. Buldeo and Gilbert (2015) which states that 58% of respondents have a high perception of benefits and positive responses of respondents regarding the benefits of VCT. The perception of high benefits increases the driving factor to act in seeking VCT services (Buldeo and Gilbert 2015).

The perception of obstacles obtained by the results of 90 respondents (75%) has a low perception of obstacles in SMAN 6 Denpasar. The low perception of barriers to students of SMAN 6 Denpasar was obtained because the provincial government support has provided affordable infrastructures such as treatment support, provision of ARV drugs, opportunistic anti-infectious drugs, and sexually transmitted infections. Countermeasures made by the government not only at-risk groups are information, communication, and education activities undertaken to encourage healthy behavior in school children, adolescents, and the community (Lestari 2013). Nareswara, Murad et al. (2016) research conducted on men like men and Abebe and Mitikie (2009) conducted on high school students, obtained the results of the perception of high barriers. The results of the perception of high obstacles caused by costs that must be incurred and feelings that are less comfortable (embarrassed), besides the high perception of obstacles, indicate the low willingness of students to do VCT.

The results showed 90 respondents (75%) had a high motivating factor at SMAN 6 Denpasar. The high driving force is due to the high level of peer support (KSPAN). These results are consistent with research Purwaningsih et al. (2011), which states the majority of respondents have a high motivating factor because they have the support of family and

friends to do VCT. Research by Nareswara, Murad et al. (2016) shows that respondents have a high motivating factor influenced by the surrounding environment, such as deaths caused by HIV / AIDS.

The results of this study showed 72 respondents (60%) had high confidence to do VCT at SMAN 6 Denpasar. High confidence in the existing health system causes individuals to trust and dare to take steps to examine. This result is reinforced by research Purwaningsih, Misutarno et al. (2017) which states high confidence because respondents believe in VCT clinic services. High confidence indicates that the individual has a strong perception of the ability to take HIV / AIDS prevention measures (Buldeo and Gilbert 2015).

Table 2: Willingness to do VCT

Availability	f	%
Good	10	8,3
Sufficient	107	89,2
Poor	3	2,5

The willingness of VCT in adolescents at SMAN 6 Denpasar has a sufficient and good level, due to the knowledge that is increasingly being carried out both from the school and Puskesmas. It is seen that all respondents get information about HIV / AIDS through various media. The role of KSPAN peers at school provides various creations to distribute true and correct information about HIV / AIDS. This is consistent with the high acquisition of HIV / AIDS information, the highest respondents coming from counselling (30.8%), and social media (30%).

The results are by research conducted on health science students at a university in Java that shows that the majority of respondents have sufficient willingness to do VCT (Sari and Parut 2017). Correct knowledge capital and awareness about healthy people can potentially transmit HIV / AIDS increasing willingness to take VCT (Yuan, Li et al. 2012) . Research from Buldeo and Gilbert (2015) which states that students are willing to know their HIV status is because students have perceptions of vulnerability, perceived benefits, driving factors, and high self-confidence.

Research from Abebe and Mitikie (2009) shows the reason for the low willingness to do VCT due to the perception of high barriers such as shame and stigma. Research conducted on respondents aged 19-27 years has a low willingness to do VCT due to fear, stigma, and discrimination (Makhubele, Dhlamini et al. 2015). Stigma on religion is one of the obstacles to finding HIV / AIDS prevention and treatment behaviour (Sari and Parut 2017). In this

study, the respondents' religion consisted of various religions, with the majority being Hindu. Religion, with the highest stigma, is found in Islam in research (Mawarni, Ismarwati et al. 2017). The results of research at SMAN 6 Denpasar found that the low perception of obstacles is one of the factors that makes respondents have sufficient and good VCT willingness.

Table 3: Relationship of serious perception to VCT readiness

			Availability of VCT	Seriousness
<i>Spearman's Rho</i>	Availability of VCT	<i>Correlation Coefficient Sig. (2-tailed)</i>	1.000	.526
		<i>n</i>	120	120
	Seriousness	<i>Correlation Coefficient Sig. (2-tailed)</i>	.562	1.000
		<i>n</i>	120	120

It was concluded that there was a relationship between perceptions of vulnerability to adolescent willingness to do VCT — the results of p-value <0.001, which indicate a significant relationship between the two variables. Then the correlation results in this hypothesis test are included in the category of moderate correlation because it has r = 0.526 and the direction of a positive relationship, which means the higher the perception of the seriousness of the individual, the higher the willingness to take VCT.

The perception of vulnerability is related to willingness to do VCT because respondents' views of HIV / AIDS are risky about anyone if they do not maintain risky behaviour. This reasoning is following the theory of HBM, which states that the perception of the risk of contracting HIV will affect one's actions in taking precautions (Raingruber 2014).

Similar research findings reinforce that vulnerability perception is related to adolescent willingness to do VCT. Research conducted on first-year students at the University of North Africa states that perceptions of vulnerability have a strong relationship to motivate individuals' willingness to do VCT (Buldeo and Gilbert 2015). Research in Indonesia, one of which was conducted in Bandung showed the significance of the perception of

vulnerability to the willingness to do VCT in men like men (Nareswara, Murad et al. 2016). The same results were shown in the use of condoms in the Belawan Harbor crew that the perception of vulnerability had a significant relationship with condom use (Sirait and Sarumpaet 2012).

Table 4: Relationship of vulnerability perception to VCT availability

			Availability of VCT	Vulnerability
<i>Spearman's Rho</i>	Availability of VCT	<i>Correlation Coefficient Sig. (2-tailed)</i> n	1.000 120	.313 120 .001
	Vulnerability	<i>Correlation Coefficient Sig. (2-tailed)</i> n	.313 120 .001	1.000 120 0

It was concluded that there was a relationship between perceptions of vulnerability to adolescent willingness to do VCT. The results of p-value <0.001, which means there is a significant relationship between the two variables. Then the correlation results in this hypothesis test are included in the category of weak correlation because it has $r = 0.313$ and the direction of a positive relationship, which means the higher the perception of individual vulnerability, the higher the willingness to take VCT.

Perception of seriousness has a relationship to the willingness of adolescents to do VCT due to exposure to information about the seriousness of HIV / AIDS infection. The relationship between the perception of seriousness about the willingness of VCT is strengthened by McCormick and Brown's statement that knowledge of the effects of a disease can influence prevention (Raingruber 2014).

The results of this study are reinforced by the same findings in Barus (2017) research showing that there is a correlation between the perception of the seriousness of the use of condoms in commercial sex workers (PSK) in Bandar Baru 2015. Nareswara, Murad et al. (2016) states the results of research on the perception of seriousness with a good level and have a less significant relationship to the willingness of men like men to do VCT. Research in Africa shows that more than half of respondents have high

perceptions about HIV / AIDS and are willing to take VCT (Abebe and Mitikie 2009).

In a study conducted in Padang Class IIA Lapas about HIV / AIDS prevention behaviour, the results showed different results. The research shows there is no relationship between the perception of seriousness with HIV / AIDS prevention behaviour (Mindayani and Hidayat 2019). The difference in results is due to the level of perception of the seriousness of the respondents. Research from Mindayani and Hidayat (2019) showed that 52 out of 100 respondents had bad perceptions of seriousness, while 106 researchers out of 120 respondents had high levels of perception of seriousness. The absence of relationships is caused by many bad behaviours that are influenced by environmental factors (Mindayani and Hidayat 2019).

The results of the study are following the HBM theory, even though a person is aware of the possibility of contracting a disease, it does not guarantee that the person will take preventive action unless the person is aware that the disease can cause serious physical problems and also social problems. One must realise that HIV / AIDS is a serious infection that has consequences and has implications for physical problems, and social life before they take preventative measures so that they do not contract HIV / AIDS (Tarkang and Zotor 2015).

Table 5: Relationship of perception of benefits to VCT availability

			Availability of VCT	Benefits
<i>Spearman's Rho</i>	Availability of VCT	<i>Correlation Coefficient Sig. (2-tailed)</i> n	1.000 120	.316 120 .000
	Benefits	<i>Correlation Coefficient Sig. (2-tailed)</i> n	.316 120 .000	1.000 120 0

It was concluded that there was a relationship between perceived benefits and adolescent willingness to do VCT. The results of p-value <0.001, which indicate a significant relationship between the two variables. Then the correlation results in this hypothesis test are included in the category of weak correlation because it has $r = 0.316$

and the direction of a positive relationship which means the higher the perception of the benefits of the individual the higher the willingness to follow VCT

Perception of benefits has a relationship with VCT willingness because knowing the benefits of doing VCT increases respondents' willingness to do VCT. This result is reinforced by the HBM theory, which states that if an individual knows the benefits of an action that can reduce the risk of the disease, then the individual tends to adopt the action (Raingruber 2014).

The results of this study are strengthened by the results of (Barus 2017) which shows as many as 75.8% of respondents have high perceived benefits and perceived benefits related to condom use behaviour. Research from Abebe and Mitikie (2009) shows that perceived benefits have a significant relationship with students' willingness to do VCT. Research by (Nareswara, Murad et al. 2016) shows that perceived benefits are significantly related to the availability of VCT in male respondents. The results of the study are following the HBM theory that if someone feels they have benefited from something, then that person will tend to apply it in their lives (Yuan, Li et al. 2012).

There is one result of research that is not appropriate, namely the study of (Mindayani and Hidayat 2019) shows that the perception of benefits is not related to HIV / AIDS transmission behaviour. There is no relationship due to environmental factors. Mindayani and Hidayat research respondents are Penitentiary Assisted Women (WBP) who enter the Class IIA Prison in Padang, which is difficult to avoid risky HIV / AIDS behaviour in prisons. Although most WBPs already have good perceptions of benefits, the WBP's environmental push causes the WBP to carry out HIV / AIDS risk behaviours (Mindayani and Hidayat 2019). Research conducted by researchers on adolescents of SMAN 6 Denpasar who has been given good exposure to HIV / AIDS information, obtained a high benefit perspective, and environmental differences lead to differences in results.

Table 6: Relationship of perceptions of obstacles to VCT availability

			Availability of VCT	Obstacle
<i>Spearman's Rho</i>	Availability of VCT	<i>Correlation Coefficient Sig. (2-tailed)</i>	1.000	.398
			.	.000

		n	120	120
Obstacle	<i>Correlation Coefficient Sig. (2-tailed)</i>		.398	1.000
			.000	.
		n	120	120

It was concluded that there was a relationship between perceptions of obstacles to adolescents' willingness to do VCT — the results of p-value <0.001, which indicate a significant relationship between the two variables. Then the correlation results in this hypothesis test are included in the category of weak correlation because it has $r = 0.398$ and the direction of a positive relationship, which means the higher the perception of individual obstacles, the higher the willingness to follow VCT.

The relationship of perceptions of barriers to a willingness to do VCT is caused by the low obstacles found in respondent so that low barriers make the individual has no obstacles to take action. The researcher's statement is reinforced by the HBM theory, which states that behaviour change will be difficult if many obstacles are found (Raingruber 2014).

The results of the study are reinforced by the research of Abebe and Mitikie (2009), showing that the perception of obstacles has a relationship to students' willingness to do VCT. Mindayani and Hidayat research (2019) shows the relationship of perception of barriers to HIV / AIDS prevention behaviour. Research by Nareswara, Murad et al. (2016) shows that respondents with a perception of low barriers are more likely to be willing to do VCT.

The obstacles that are often found in conducting VCT are stigma, shame, cost, and confidentiality. The main reasons a person is not willing to do VCT are fear of stigma, assume that he is not likely to get HIV, and do not want to know the results that will come out (Yuan, Li et al. 2012). Also, social sanctions such as refusal from family and community members make a person reluctant to do VCT.

Table 7: Relationship between driving factors and VCT availability

			Availability of VCT	Push Factor
<i>Spearman's Rho</i>	Availability of VCT	<i>Correlation Coefficient Sig. (2-tailed)</i>	1.000	.617
			.	.000

		n	120	120
	Push Factor	<i>Correlation Coefficient</i>	.617	1.000
		<i>Sig. (2-tailed)</i>	.000	.
		n	120	120

It was concluded that there was a relationship between the driving factors and adolescent willingness to do VCT — the results of p-value <0.001, which indicate a significant relationship between the two variables. Then the correlation results in this hypothesis test are included in the category of moderate correlation because it has $r = 0.617$ and the direction of a positive relationship, which means the higher the driving factors that influence the individual, the higher the willingness to take VCT.

The driving factor is related to the willingness to do VCT because of the high encouragement from the family and especially the respondents' peers based on the results in chapter five. The encouragement of peers at SMAN 6 Denpasar is strengthened by the active KSPAN, which provides motivation and information to fellow peers. This support provides an excuse for individuals to take action and feel safe and not isolated if doing VCT. HBM theory states that the encouragement of the experience and support of high people around can make individuals change their behaviour for the better (Raingruber 2014).

The research of Nareswara, Murad et al. (2016) strengthened the results of the study showing that the driving factor was related to the availability of VCT in male respondents. The driving factor has a relationship with the prevention of HIV / AIDS transmission. Baru's (2017) shows a partner's drive related to the behaviour of the use of condoms in commercial sex workers.

HBM's unity supports one another. The driving factor is greater if there is support from people around and a high understanding of risk. Differences in demographics and the prevalence of the disease in an area also encourage individuals to do VCT (Nareswara, Murad et al. 2016). The driving factor is closely related to the perception of benefits and the perception of obstacles if the individual knows the benefits and is unable to overcome the obstacles that arise, then the individual does not take any action (Tarkang and Zotor 2015).

Table 8: Relationship of confidence in the availability of VCT

			Availability of VCT	Trust
<i>Spearman's Rho</i>	Availability of VCT	<i>Correlation Coefficient</i>	1.000	.550
		<i>Sig. (2-tailed)</i>	.	.000
	Trust	<i>Correlation Coefficient</i>	.550	1.000
		<i>Sig. (2-tailed)</i>	.000	.
		n	120	120

It was concluded that there was a relationship between self-confidence and the willingness of adolescents to do VCT. The results of p value <0.001 which indicate a significant relationship between the two variables. Then the correlation results in this hypothesis test fall into the medium correlation category because it has $r = 0.550$ and the direction of the positive relationship which means the higher the individual's self-confidence the higher the willingness to take VCT.

The results showed confidence was related to the willingness of VCT in adolescents at SMAN 6 Denpasar. Confidence is related to the willingness of VCT because with high self-confidence that makes individuals willing to do VCT. HBM theory which states the confidence to be able to take an action will be even greater changes in the actions to be taken (Raingruber 2014).

The results of the study are strengthened by the research of Abebe and Mitikie (2009) showing that confidence is associated with willingness to do VCT even though it is not significant. Research on CSWs shows that self-efficacy is related to condom use in Bandar Baru. Research in people at high risk of HIV / AIDS shows confidence associated with the use of VCT (Purwaningsih, Misutarno et al. 2017). Research on male respondents shows that self-confidence is related to willingness to do VCT but is not significant (Nareswara, Murad et al. 2016).

High respondent confidence in research results is the result of perceptions of other HBM components that support each other. Less confidence can be given more information and encouragement from those around (Tarkang and Zotor 2015). Increased confidence needs to be done to increase the availability of VCT, the higher the confidence the

higher the willingness to do VCT (Sirait and Sarumpaet 2012).

The limitations of the study would be better if you use schools with different demographics, so we get more varied answers.

4 CONCLUSIONS

VCT availability of respondents in SMAN 6 Denpasar was in the sufficient category. Respondents have a good perception for each component of HBM. All HBM Components have a relationship to the willingness to do VCT. These results must continue to be encouraged to increase the use of VCT among adolescents. The role of peers through KSPAN needs to be maintained to provide information and understanding related to VCT.

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The Effect of Counseling on Toddler Posyandu to Mother's Toddler's Knowledge in Banjar Dalem, Songan Village Kintamani District

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Abstract:

Posyandu toddlers are basic health services for toddlers. However, the participation of mothers in bringing children under five to Posyandu is relatively low because the mother's knowledge about the benefits of Posyandu is still lacking. This study aims to determine the effect of counselling about Posyandu toddlers on the knowledge of toddlers mothers in Banjar Dalem, Songan B Village, Kintamani District. Pre experimental design research with one group pretest-posttest design was conducted in December 2018 - April 2019. The population in this study was mothers who have children under five in Banjar Dalem with a sample size of 20 respondents. The sampling technique used is simple random sampling. This research method is a self-completed questionnaire using a questionnaire. Data analysis uses the Wilcoxon Signed-Rank Test. Among the 20 respondents, 45% of respondents were senior high school education. The average age was 31 years (ranging from 17-45 years). There was a statistically significant increase in the median score of mothers' knowledge from pre-intervention (12) to post-intervention (18), $p < 0.001$. There is an influence of counselling about toddler Posyandu to the knowledge of toddler mothers in Banjar Dalem, Songan B Village, Kintamani District. This intervention has potential benefits in the community to optimize Posyandu functions. So that the visit of children under five to Posyandu increases, also, further research is needed.

Keywords: Counseling, Toddler Posyandu, Knowledge

1 INTRODUCTION

Posyandu was established as a forum for community empowerment and to provide basic health services for mothers, infants and toddlers (Hartono, 2010). The services provided at Posyandu for toddlers are monitoring the growth of toddlers with routine weight weighing at the Posyandu. Efforts to prevent malnutrition and malnutrition are very important to reduce AKABA. One effort to prevent malnutrition and malnutrition that can be done is to monitor the growth of children under five with regular weighing at the Posyandu.

Based on Basic Health Research in 2017, the percentage of weighing under-fives is 77.95% (Ministry of Health Republic of Indonesia, 2017). This figure is still below the target set by the Government through the Strategic Plan (Renstra) in 2010-2014, which is 85% (Ministry of Health Republic of Indonesia, 2010). According to a Bangli District Health Office report in 2017, the percentage of children under five with malnutrition in Bangli District was 0.6%.

Efforts that nurses can do as educators are to carry out counselling. When conducting counselling, the use of health education media can assist in the process of delivering information to the public.

2 METHOD

This study used a pre-experimental design with one group pretest-posttest design. This research was conducted in Banjar Dalem, Songan B Village in March 2019. The population in this study was mothers who have children under five in Banjar Dalem with a sample size of 20 respondents. Sampling in this study uses probability sampling, namely simple random sampling. Data collection tools using a questionnaire with a Guttman scale. The questionnaire used in this study serves to measure the knowledge of mothers before and after counselling and is made by researchers with face validity test. The questionnaire consisted of 20 statements with choices of right and wrong answers.

3 RESULTS

The results obtained in this study are as follows:

Table 1. Frequency Distribution of Toddler Mother's Knowledge Before Counseling

Knowledge	Frequencies (n)	Percentage (%)
Good	0	0
Sufficient	15	75
Poor	5	25
Total	20	100

Based on table 1 above, it can be concluded that of the 20 respondents, in general, most of the respondents' knowledge before being provided with counselling was in the sufficient category that is as many as 15 respondents (75%).

Table 2. Frequency Distribution of Toddler Mother's Knowledge After Counseling

Knowledge	Frequencies (n)	Percentage (%)
Good	16	80
Sufficient	4	20
Poor	0	0
Total	20	100

Based on table 2 above, it can be concluded that of the 20 respondents, in general, most of the respondents' knowledge after being provided with counselling were in the good category of 16 respondents (80%).

Table 3. Wilcoxon Signed-Rank Test Results

Knowledge	n	Z	P-value
Negative Ranks	0 ^a	-3,945 ^b	0,001
Positive Ranks	20 ^b		
Ties	0 ^c		
Total	20		

Based on the above table the results of data analysis are not normally distributed, then using the Wilcoxon Signed-Rank Test shows that the p value = 0.001 (p < 0.05) is obtained, which means Ha is accepted. Ha so it can be interpreted that there is an influence of counseling about Posyandu toddlers to the knowledge of toddler mothers in Banjar Dalem, Songan B Village, Kintamani District.

4 DISCUSSION

4.1 Toddler Mother's Knowledge Before Counseling

Based on the results of the study, it was found that 20 respondents who had knowledge of Posyandu for under-fives before being given counseling were mostly knowledgeable, as many as 15 respondents (75%). While some respondents have less knowledge. In the negative statement questionnaire, namely reducing the mortality rate of school-age children is a special goal for Posyandu toddlers as much as 75% of respondents answered correctly and as much as 25% of respondents answered incorrectly. This shows that the knowledge of mothers of children under five before giving counseling about Posyandu for children under five tends to be less evidenced by some respondents answering correctly on the negative statement. Counseling is the delivery of information to give a good understanding to a person or group of people.

4.2 Mother's Toddler Knowledge After Counseling

Based on the results of the study it was found that there was an increase in knowledge of mothers of toddlers after being given counseling that most respondents had good knowledge of 16 respondents (80%). In this study there are three characteristics which are factors that influence the knowledge of mothers of children under five, namely age, education and occupation. The results of this study are in line with the results of research conducted by on the Effect of Health Promotion on Posyandu Towards Increased Knowledge of Toddler Parents in Pinokalan Village, Ranowulu District, Bitung City, namely the level of respondents' knowledge after health promotion was mostly in the good category.

4.3 The effect of counseling on toddler mother's knowledge

The results of this study indicate that counseling influences the knowledge of mothers of toddlers about Posyandu toddlers in Banjar Dalem, Songan B Village, Kintamani District with a p value < 0.05, so that Ha is accepted. All respondents experienced an increase in knowledge after being educated about Posyandu toddlers with PowerPoint media. The results obtained in accordance with the theory of Syafrudin & Fratidhina (2009), health education is a learning process in developing the correct

understanding and positive attitude of individuals or groups towards health.

In this study, the method used in providing counseling in the form of lectures with PowerPoint uses LCD media. This shows that the use of PowerPoint media is classified as effective media. Material was delivered verbally to respondents accompanied by discussions and questions and answers so that respondents could better understand the material provided. This is because the PowerPoint media can be added with pictures or photos, each material is made easy for participants to understand and can be seen repeatedly. This is consistent with the research of Wijayanti et al. (2016) which shows that counseling in the form of lectures with PowerPoint succeeded in increasing public knowledge about leptospirosis.

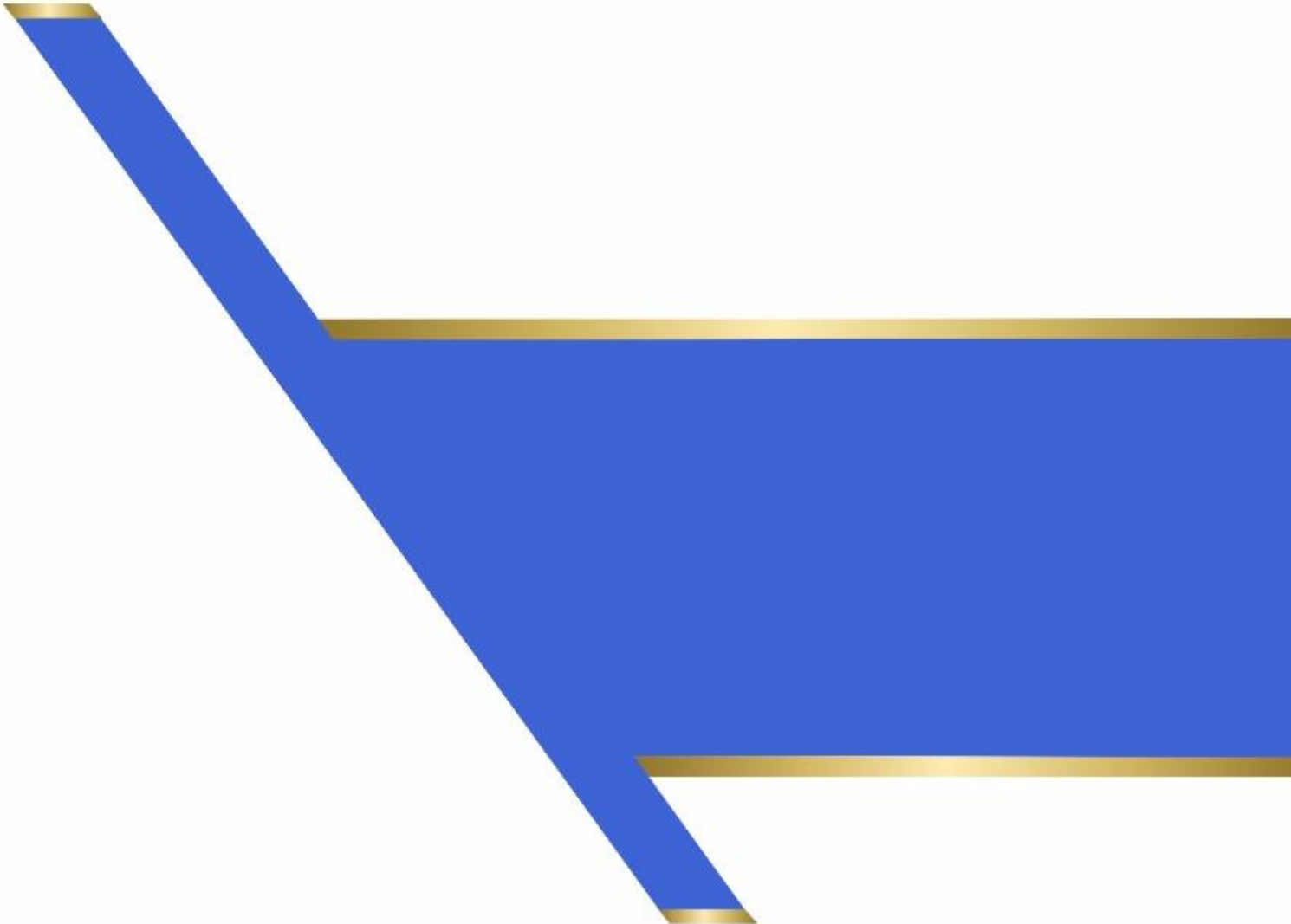
Based on research on the influence of counseling on Posyandu toddlers on the knowledge of toddler mothers in Banjar Dalem, Songan B Village, Kintamani District, the results of this study indicate that before giving counseling, most toddler mothers have sufficient knowledge, namely as many as 15 respondents (75%) and some have less knowledge as many as 5 respondents (25%). After counseling, most mothers have good knowledge, namely as many as 16 respondents (80%) and some who are knowledgeable enough as many as 4 respondents (20%). The Wilcoxon Signed-Rank Test results show that the value of p value = 0.001 ($p < 0.05$) is obtained. So it can be concluded that there is an influence of counseling about Posyandu toddlers to the knowledge of toddlers mothers in Banjar Dalem, Songan Village, Kintamani District.

To the Kintamani Community Health Center to carry out counseling on Posyandu toddlers to the community with a more interesting strategy so that people are more interested in visiting Posyandu. For further researchers when they want to conduct similar research in order to use more than one research instrument in addition to the questionnaire, such as an observation sheet or with direct observation.

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