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PROCEEDINGS

THE 1ST YOGYAKARTA INTERNATIONAL SEMINAR ON HEALTH, PHYSICAL EDUCATION, AND SPORTS SCIENCE.

Evidence-Based Practice of Sports Science in Education, Performance, and Health.

October 14th, 2017. Eastparc Yogyakarta, Indonesia





Universitas Negeri Yogyakarta



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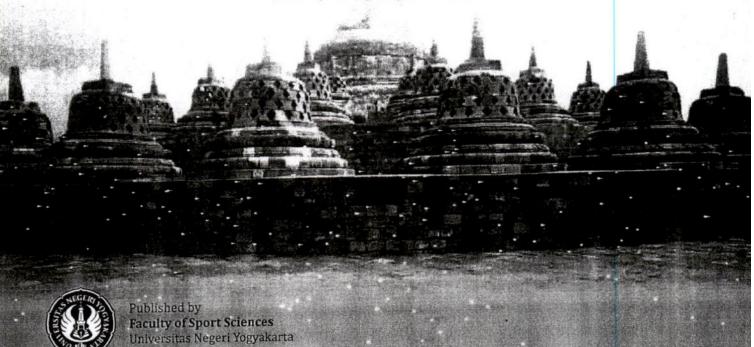


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Publisher

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Published by: Faculty of Sport Sciences Universitas Negeri Yogyakarta October 14th, 2017

OPENING SPEECH

As the Dean of Faculty of Sport Sciences Universitas Negeri Yogyakarta, I would like to welcome and congratulate to all speakers and participants of the First Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) 2017 entitled "Evidence-Based Practice of Sport Science in Education, Performance, and Health".

This international seminar is actually an implementation in the framework of the assessment of the achievements and sports culture in society that can support the achievements of the Indonesian people, so that there will be a significant role of practitioners, academicians, sport people, and sports observers from Universities, Institutions and Sports Organizations to help actively facilitate in the development, assessment of innovative sports science development so as to achieve sport achievements at the National and International level.

Finally, we thank all the committee of YISHPESS for their hard work in organizing this activity, and congratulate the invited speakers and all participants. Hopefully, this seminar is significant for the development of physical education, health, and sports sciences.

Dean of Faculty of Sport Sciences, iversitas Negeri Yogyakarta

Dr. Wawan S. Suherman, M.Ed.

PREFACE

Alhamdulillahirobilalamin, thank Allah the First Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) has been prepared well and on time. With all humility, we welcome and congratulate the speakers and participants of Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) organized by the Faculty of Sport Sciences, Universitas Negeri Yogyakarta.

The YISHPESS 2017 is designed to updating and applying evidence-based practice in sports science aspects, including: education, performance and health. We hope that the invited speakers of this seminar can reduce the gaps between academic and field to get best output in the daily sport and health practices.

We would like to thank to Rector and the board of Universitas Negeri Yogyakarta for supporting this seminar come true. Praise and be grateful to the Lord, so that this proceeding can be issued. Hopefully, the publication of this proceeding can bring benefits to the participants in particular and readers in general.

Chairperson of the Committee

VISHPES Dr. W. Mansur, M.S.

CONTENT

Preface	
Content	
Keynote Speaker	
1.THE STRUGGLE OF JERRY LOLOWANG: A CASE STUDY OF CANCER SURVIVOR IN ACHIEVING Author: M. Erika Rachman Universitas Sebelas Maret	76
2.PHYSIOLOGICAL PROFILE OF MEMBERS HATHA YOGA EXERCISE Author: Galih Yoga Santiko Universitas Negeri Yogyakarta	83
3.THE EFFECT OF INTERACTIVE VIDEO IN TEACHING VOLLEY BALL THROUGH BASIC PASSING TECHNIQUE Author: Rekha Ratri Julianti Universitas Singaperbangsa Karawang	91
4.THE EFFECT OF DOMINANT PHYSICAL COMPONENTS, AND SELF-BASKET PLEEMBAN ATLET PALEMBANG TOWN SUCCESS FREE THROW Author: Bayu Hardiyono Universitas Binadarma	98
5. DIFFERENCES IN FUTSAL SKILL BETWEEN CLUB AND HIGH SCHOOL PLAYERS Author: Agus Susworo Dwi Marhaendro Universitas Negeri Yogyakarta	105
6. DEVELOPMENT OF INTEGRATED PHYSICAL EDUCATION LEARNING MODEL Author: Sri Winarni Universitas Negeri Yogyakarta	111
7.THE EFFECT OF BLOCK PRACTICE, SERIAL PRACTICE AND RANDOM PRACTICE TO IMPROVE BASKETBALL FUNDAMENTAL SKILL FOR BEGINNER Author: Riyan Pratama Universitas Bina Darma	123
8.THE DIFFERENCES OF INTRUCTIONAL MEDIA AND COORDINATION IN LEARNING OUTCOMES OF GROUNDSTROKES TENNIS ON NOVICE LEVEL ATHLETES Author: Dian Pujianto Universitas Bengkulu	131
9. ANDROID BASED REFERENCE MODEL OF STUDENT'S SKILL COACHING Author: Endang Rini Sukamti Universitas Negeri Yogyakarta	139

10. TEACHING BADMINTON SMASH BY USING TEAM GAME TOURNAMENT (TGT) MODEL IN SMP MUHAMMADYAH KARAWANG Author: Didik Fauzi Dermawan Universities Singaperbangsa Karawang	145
11. EFFECT OF INTENSIVE AND EXTENSIVE INTERVAL METHODS AGAINST ENHANCED SPEED ENDURANCE SPRINT 400 METERS Author: Fajar Adi Nugroho Universitas Pendidikan Indonesia	153
12. THE ATTEMPT OF IMPROVING POWERFUL KICK IN SOCCER USING WEIGHT TRAINING Author: Yanuar Dhuma Ardhiyanto Universitas Negeri Yogyakarta	161
13. IMPROVING STUDENTS LEARNING ACHIEVEMENT IN RUNNING BASIC LOCOMOTION MOVEMENT THROUGH GAME AT FIFTH GRADE STUDENT OF SD NEGERI 1 SURAKARTA IN THE ACADEMIC YEAR 2013/2014 Author: Luli Pitakasari Arnenda Universitas Sebelas Maret Surakarta	167
14. THE INFLUENCE OF EXERCISE ON HOW TO THROW SOFTBALL BY USING THE TARGET TOWARDS THE ACCURACY OF THROWING SOFTBALL IN BUFFALOES UNS ATHELETE IN 2012 Author: Kristanto Adi Nugroho	174
Universitas Sebelas Maret Surakarta 15. MANAGEMENT OF DEVELOPING SWIMMING ACHIEVEMENT IN NPC (NATIONAL PARALYMPIC COMMITTEE) OF INDONESIA Author: Nonik Rahmawati Universitas Sebelas Maret Surakarta	181
16. CORRELATION OF BODY MASS INDEX AND CARDIORESPIRATORY FITNESS TO THE RISK OF METABOLIC SYNDROME IN ADOLESCENTS Author: Abdullah Al-Hazmy Universitas Sebelas Maret Surakarta	189
17. SOLO LAST FRIDAY RIDE AS A SPORT COMMUNITY IN SOLO Author: Rianto Ardi Nugroho Universitas Sebelas Maret Surakarta	190
18. DEVELOPING SNAKE LEADERS GAME FOR LEARNING MEDIA OF PHYSICAL EDUCATION SPORT AND HEALTH TO FOURTH GRADE STUDENTS OF MADANI ELEMENTARY SCHOOL IN PALU CITY Author: Marhadi Universitas Tadulako	195

19. THE EFFECT OF PLYOMETRICS TRAINING AND ACHIEVEMENT MOTIVATION TOWARDS LEG MUSCLE EXPLOSIVE POWER OF VOLLEYBALL ATHLETES IN UNIVERSITAS NEGERI PADANG Author: Muhamad Sazeli Rifki Universitas Negeri Padang	205
20. THE PSYCHOLOGICAL CHARACTERISTICS OF INDONESIAN SEA GAMES ATHLETES IN 2017 VIEWED FROM SPORT MARTIAL ARTS AND ACCURACY Author: Bintara Universitas Negeri Yogyakarta	210
21. EXPECTATION APPRECIATION AND PUBLIC PERCEPTION TO THE PHENOMENON OF STREETWORKOUT COMMUNITY Author: Hari Hanggoro Universitas Sebelas Maret	216
22. DEVELOPING OF TRADITIONAL GAMES AS NATION CULTURE THROUGH IN PHYSICAL EDUCATION LEARNING FOR ELEMENTARY SCHOOL STUDENTS Author: Asriansyah Universitas PGRI Palembang	221
23. CONTRIBUTION OF FLEXIBILITY, STRENGTH, AND BALANCE ON THE CARTWHEEL OF PKO STUDENTS CLASS 2016 Author: Ratna Budiarti Universitas Negeri Yogyakarta	229
24. EFFECT SHORT-TERM AQUAROBIC EXERCISE ON DHEA-S LEVELS IN WOMEN Author: Siti Baitul Mukarromah Universitas Negeri Semarang,	239
25. PREDICTION OF THE INCIDENCE RATE OF CARDIOVASCULAR DISEASE FOR THE EMPLOYEES AND LECTURERS OF YOGYAKARTA STATE UNIVERSITY BASED ON THE POST-EXERCISE RECOVERY HEART RATE Author: Cerika Rismayanthi Universitas Negeri Yogyakarta	240
26. EFFECTIVENESS OF UMAC-CPF EXERCISE MODEL ON MOTOR ABILITY OF INDONESIAN CP FOOTBALL PLAYERS Author: Fadilah Umar Universitas Sebelas Maret	247
27. DEVELOPMENT OF WEB-BASED TRACER STUDY AT THE DEPARTMENT OF SPORTS COACHING EDUCATION Author: Subagyo Irianto Universitas Negeri Yogyakarta	256

28. MOUNTAINEERING ACTIVITIES OF MERBABU AS SPORTS RECREATION SOCIETY (PHENOMENOLOGY STUDY ABOUT SOCIETY CONDUCTING ACTIVITIES OF MOUNTAINEERING IN THE MOUNT MERBABU NATIONAL PARK) Author: Faisal Adam Rahman Universitas Sebelas Maret	261
29. INCREASE VO ₂ MAX BADMINTON ATHLETES USE EXERCISES FOOTWORK WITH METHOD HIIT (HIGH INTENSITY INTERVAL TRAINING) Author: Donie Universitas Negeri Padang	265
30. THE EFFECT OF EXERCISE MODEL BASED ON INTERACTIVE MULTIMEDIA TO SEPAKTAKRAW SKILLS Author: Didik Purwanto Universitas Tadulako	270
31. SOCCER TRAINING MODEL IN YOUTH ATHLETE BASED ON THE LONG-TERM ATHLETE DEVELOPMENT (LTAD) Author: Komarudin Universitas Negeri Yogyakarta	275
32. LEARNING RESULTS IMPROVEMENT OF FOREARM PASSING RESULTS OF VOLLEY BALL GAME THROUGH DRILL METHODS ON STUDENTS XI.IPS.1 IN PUBLIC SENIOR HIGH SCHOOL I TELAGASARI KARAWANG Author: Akhmad Dimyati UNSIKA	280
33. PHYSICAL EDUCATION AND SPORT IN SCHOOLS: APPLICATION SOCCER LIKE GAMES Author: Mochamad Ridwan Universitas Negeri Surabaya	292
34. THE DIFFERENCES OF PHYSICAL FITNESS LEVELS BETWEEN POOR AND EXCESSIVE NUTRITIONAL STATUS Author: Sepriadi Universitas Negeri Padang	297
35. THE STUDY OF KNOWLEDGE ABOUT FIRST AID (P3K) AND BASIC LIFE SUPPORT PRINCIPLES IN YOGYAKARTA COMMUNITY Author: Eka Novita Indra Universitas Negeri Yogyakarta	305
36. THE INFLUENCE OF TEACHING STYLE AND MOTOR ABILITY ON THE BOTTOM PASSING LEARNING OUTCOMES IN THE VOLLEYBALL Author: Ahmad Muchlisin Natas Pasaribu Universitas Muhammadiyah Tangerang	314

37. EFFECTIVENESS OF SHOOTING TRAINING MODEL FEBI FUTSAL GAMES ON THE IMPROVEMENT OF SHOOTING RESULT ON FUTSAL SPORTS FOR BEGIN PLAYER Author: Febi Kurniawan Universitas Singaperbangsa	321
38. DIFFERENCES OF LEARNING ACHIEVEMENTS INTERGRADE AND GENERAL CLASS SPORT CLASS BASED ON LEVEL EDUCATION OF PARENTS IN CLASS VII SMP N 4 PURBALINGGA Author: Audi Akid Hibatulloh Universitas Negeri Yogyakarta	327
39. LEARNING MODELS OF PHYSICAL ACTIVITY BASED ON MOTOR PERCEPTION KINDERGARTEN STUDENT Author: B.Suhartini Universitas Negeri Yogyakarta	334
40. DESIGN OF MEASURABLE SPORTS CLUB IN ELEMENTARY SCHOOL IN BALI PROVINCE Author: Suratmin Universitas Pendidikan Ganesha	341
41. ANALYSIS OF PHYSICAL CONDITION OF SOCCER ATHLETE'S PORDA OF BEKASI CITY Author: Apta Mylsidayu Universitas Islam 45 Bekasi	348
42. HEALTH AND HEALTHY LIFESTYLE ENHANCEMENT THROUGH SPORT AND PHYSICAL EDUCATION CREATIVE APPROACH Author: Wing Prasetya Kurniawan Universitas Nusantara PGRI Kediri	356
43. THE EFFECTS OF PHYSICAL EXERCISE THROUGH GAME-MODEL AND CIRCUIT-MODEL EXERCISES APPROACH ON THE MAXIMUM AEROBIC CAPACITY Author: Umar Universitas Negeri Padang	367
44. DIFFERENCES INFLUENCE OF INTERVAL DRILL EXERCISE BETWEEN ACTIVE AND PASSIVE ON SKILLS OF ATHLETE AT THE AGE OF CHILDREN Author: Hariyuda Anggriawan Universitas Sebelas Maret	377
45. EXERCISE FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS Author: Anita Suryani Universitas Indonesia	383

46. THE EFFECT OF KICKING SPEED, STRENGTH AND LEG MUSCLE EXPLOSIVE POWI ON THE ABILITY OF DOLLYO CHAGI OF TAEKWONDO DOJANG ATHLETE Author: Nurul Ihsan	ER 390
Universitas Negeri Padang	
omversitas regerri adang	
47. CORRELATION BETWEEN PROTEIN INTAKE WITH MUSCLE STRENGTH OF	398
ATHLETES	
Author: Wilda Welis	
Universitas Negeri Padang	
48. DEVELOPMENT OF MONITORING BOOKS FOR SWIMMING	404
Author: Nur Indah Pangastuti	
Universitas Negeri Yogyakarta	
49. THE DIFFERENCE IN THE EFFECTS OF BIRTH TYPES ON THE MOTOR SKILLS OF	411
CHILDREN AT AN EARLY AGE	
Author: Panggung Sutapa	
Universitas Negeri Yogyakarta	
50. THE EFFECT OF SUPPLEMENT SOYBEAN MILK AND WHEY PROTEIN IN LOAD	417
EXERCISESTOWARD THE INCREASING HYPERTROPHY OF THIGH MUSCLES	
Author: Khairuddin	
Universitas Negeri Padang	
54 DANIGO A A CONTROL OF CALL DEPARTMENT DATE AND A DECENCE	V 424
51. PHYSICAL ACTIVITY OF CHILDREN IN DIENG PLATEAU BANJARNEGARA REGENC	Y 424
(PHENOMENOLOGICAL STUDIES FROM THE VIEWPOINT OF SPORTS VALUES)	
Author: Dody Tri Iwandana Universitas Sebelas Maret	
Offiversitas Sebelas Maret	
52. PICTURE MEDIA DEVELOPMENT FOR PENCAK SILAT LEARNING IN HIGH SCHOOL	LS 427
Author: Nur Rohmah M., M.Pd	
Universitas Negeri Yogyakarta	
53. THE EFFECT OF IMAGERY ON BEGINNER TENNIS PLAYERS' FOREHAND DRIVE	436
SKILL	
Author: Risti Nurfadhila	
Universitas Negeri Yogyakarta	

54. THE EFFECT OF HONEY SUPPLEMENTATION BEFORE PHYSICAL ACTIVITY TOWARDS THE PLASMA MALONDIALDEHYDE LEVEL IN MALE WISTAR RATS (RATTUS NORVEGICUS) Author: Krisnanda DA Universitas Negeri Yogyakarta	443
55. THE LEARNING RESULT OF FOOTBALL BASIC TECHNIQUE SKILL Author: Arsil Universitas Negeri Padang	451
56. BREAKING THE CHAIN OF "KLITIH" THROUGH CHARACTER EDUCATION IN PHYSICAL EDUCATION Author: Pasca Tri Kaloka Universitas Negeri Yogyakarta	458
57. PHYSICAL EDUCATION LEARNING THROUGH TRADITIONAL GAMES TO IMPROVE COOPERATION AND RESPONSIBILITY AT ELEMENTARY SCHOOL Author: Ranintya Meikahani Universitas Negeri Yogyakarta	466
58. MODEL DEVELOPMENT BASIC DRIBLING FOOTBALL-BASED TRAINING TECHNIQUES FOR BEGINNING ATHLETES AGED 8-12 YEARS Author: Ahmad Atiq Universitas Tanjungpura Pontianak	474
59. THE MODEL OF GAMES TO DEVELOP FUNDAMENTAL MOVEMENT OF KINDERGARTEN STUDENTS Author: Uray Gustian Universitas Tanjungpura	481
60. DEVELOPMENT OF MEDIA-BASED TRAINING 3GS (TRIPLE GAME SET); MONOPOLY, SNAKES LADDERS AND FENCING PUZZLE FOR CHARACTER EDUCATION EFFORTS IN BEGINNER ATHLETES Author: Faidillah Kurniawan Universitas Negeri Yogyakarta	489
61. STUDENTS'S PERCEPTION TOWARDS INTEGRATED LEARNING METHOD USING VIRTUAL MICROSCOPE IN HISTOLOGY COURSE Author: RL Ambardini Universitas Negeri Yogyakarta	498

62. THE DEVELOPMENT OF TOPURAK (TOTOK-PUKUL-GERAK) MANIPULATION MODEL FOR KNEE JOINT REPOSITION Author: BM. Wara Kushartanti Universitas Negeri Yogyakarta	504
63. THE EFFECTIVENESS OF TRAINING GUIDED IMAGERY IN LOWERING ANXIETY ON ATHLETES Author: Donie Universitas Negeri Padang	511
64. EFFECT OF FRESH COW MILK AND PASTEURIZATION MILK TOWARD GLUCOSE IN SOCCER PLAYERS ACCOMPANIED BY PHYSICAL ACTIVITY. Author: Rini Syafriani Institut Teknologi Bandung	517
65. THE CONTRIBUTION OF LEG MUSCLE STRENGTH AND DYNAMIC BALANCE TOWARDS THE ABILITY OF DOLLYO CHAGI KICK Author: Yogi Setiawan Universitas Negeri Padang	524
66. LAY UP SHOOT SKILL OF FIK UNP STUDENTS (EXPERIMENTAL STUDY OF TEACHING METHOD AND LEARNING MOTIVATION TOWARD LAY UP SHOOT SKILL OF FIK UNP STUDENTS) Author: Hendri Neldi Universitas Negeri Padang	529
67. THE EFFECT OF PRACTICE AND GAME LEARNING APPROACH ON THE CHEST PASS LEARNING ACHIEVEMENT ON EXTRACURRICULAR BASKET BALL PLAYING Author: Puthut Endiarto Universitas Sebelas Maret	536
68. THE INFLUENCE OF CIRCUIT TRAINING METHOD ON THE ENHANCEMENT OF PHYSICAL FITNESS OF SPORTS EDUCATION DEPARTMENT STUDENTS Author: Sefri Hardiansyah Universitas Negeri Padang	541
69. EFFECT OF PHYSICAL ACTIVITY ON OXIDATIVE STRESS: A REVIEW OF IMPACT AND IMPLICATION AFTER TRAINING Author: Wildan Alfia Nugroho Universitas Sebelas Maret	548
70. SPORT DEVELOPMENT INDEX IN SEVERAL CITIES/REGENCIES IN JAVA ISLAND: A REVIEW OF BENEFITS AND OUTCOME Author: Boy Sembaba Tarigan Universitas Sebelas Maret	554

71. THE EFFECT OF MANIPULATION TRAINING COMPLEX TO MAXIMUM STRENGTH Author: Mansur Universitas Negeri Yogyakarta	559
72. MANAGEMENT OF FACILITIES SPECIAL CLASS OF SPORT (KKO) IN SMA NEGERI 4 YOGYAKARTA Author: Tri Ani Hastuti Universitas Negeri Yogyakarta	569
73. DEVELOPMENT OF LEARNING ATHLETIC LEARNING MODELS RELEASE DIRECTLY BASED GAMES IN ELEMENTARY SCHOOL Author: Hartati Universitas Sriwijaya	578
74. THE EFFECT OF COOPERATIVE LEARNING MODEL OF TEAM GAMES TOURNAMENT ON LAY UP SHOOT TOWARDS THE LEARNING OUTCOMES (EXPERIMENTAL STUDY) ON BASKETBALL SMP NEGERI KARAWANG Author: Rahmat Iqbal Universitas Singaperbangsa Karawang	586
75. THE EFFECTS OF PRACTICE METHOD AND ACHIEVEMENT MOTIVATION ON MAXIMUM VOLUME OXYGEN OF FOOTBALL PLAYERS Author: Didin Tohidin Universitas Negeri Padang	594
76. THE EFFECT OF PROTEIN SUPPLEMENT ON MAXIMUM STRENGTH TOWARD THE MEMBERS OF ONE GYM FITNESS CENTER PADANG Author: Adnan Fardi	600
Universitas Negeri Padang 77. THE EFFECT OF PACITAN SWEET ORANGE JUICE TO MALONDIALDEHYDE LEVEL (MDA) AFTER ECCENTRIC ACTIVITY Author: Indra H.S Universitas Negeri Surabaya	606
78. COMMUNITY INTERESTS FOLLOWING TRADITIONAL SPORT ACTIVITIES IN CAR FREE DAY ACTIVITIES Author: Mia Kusumawati Universitas Islam" 45" Bekasi	611
79.THE EFFECT OF TWO ACTIVE RECOVERIES IN REDUCING LACTIC ACID OF BADMINTON ATHELETES Author: Ainur Rasyid PGRI Sumenep	617
80. THE EFFECT OF AEROBIC DANCE AND CYCLING ON THE PSYCHOLOGICAL WELL-BEING OF TEENAGERS Author: Rizki Kurniati Universitas Pembinaan Masyarakat Medan	623

81. SURVEY OF THE LEISURE TIME ACTIVITIES OF THE STUDENTS OF FACULTY OF SPORTS SCIENCE, UNIVERSITAS NEGERI YOGYAKARTA Author: Dapan Universitas Negeri Yogyakarta	632
82. ANTROPOMETRY AND PHYSICAL FITNESS FACTORS DETERMINANT DRIBBLING AND PASSING FUTSAL ABILITY OF STUDENT EXTRACURRICULAR AGED 12-15 YEARS Author: Nizamuddin Nur Ramadaniawan Universitas Sebelas Maret	637
83. MULTI STATION REBOUNDER TOOL DEVELOPMENT AS A GUIDE FOR TRAINING INSTRUMENT BASED ON INDEPENDENT FOOTBALL Author: Santoso Nurhadi Universitas Negeri Yogyakarta	643
84. DEVELOPMENT OF TOOL DETECTOR LJDOF-SDH FOR LONG JUMP AS A MEDIA FOR BASIC MOTOR OF TRACK AND FIELD LEARNING BASED ON SENSOR Author: Sriawan Universitas Negeri Yogyakarta	651

THE STUDY OF KNOWLEDGE ABOUT FIRST AID (P3K) AND BASIC LIFE SUPPORT PRINCIPLES IN YOGYAKARTA COMMUNITY

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Abstract

Objectives: We quite often faced a condition where we are dealing with someone who had an accident or disruption in the physical conditions that are sudden and unexpected. The victim needs first aid should be done as early as possible or even basic life support should be given to reducing and eliminating the risk of injury, disability, or even death. Basic life support is part of first aid (known as P3K). This research aim is to know and predict social phenomena that occur in the community related their knowledge about first aid and basic life support.

Methods: This is a survey research conducted by quantitative methods; data collection techniques conducted by survey method with the research instrument in the form of a questionnaire which consist of 32 questions. Respondents are 235 members of the public, taken by area probability sampling method, with minimal age 17 years old, not the medical personnel. Who are then given a questionnaire to assess knowledge about first aid (P3K) and Basic Life Support principles. Respondents were from five existing city district in the Yogyakarta province (Yogyakarta city, Sleman, Bantul, Gunungkidul, and Kulonprogo), with their diversity in gender, age, occupation, and educational level. Data presented descriptively in the form of percentage.

Results: The results showed that the overall average scores obtained by respondents are 74.7 points, thus can be assumed that majority of respondents knowledge about first aid and basic life support quite good. Whereas when grouped by category: 51.49% of respondents included in good category, 44.68% included in the fair category, and the rest is just 3.83% of the respondents have a score that is included in the poor category.

Conclusions: In Brief, we present a social fact that majority of Yogyakarta society have well knowledge about first aid and basic life support.

Keywords: Knowledge, First aid, Basic life support.

Introduction

High or low numbers of mortality in a country is an indicator of health care services quality and public knowledge and awareness level to health. Although many health problems associated with chronic and degenerative diseases, we often encounter the occurrence of sudden health disorders of a person, it could be that it appears as a trigger factor, but sometimes occur due to accidents. Accidents can happen anywhere and at any time, in the workplace, the highway, even though inside the house that many people assume as the safetiest place. Statistics show the death victims caused by accidents is still high. Based on World Health Organization (WHO) data, the number of deaths due to accidents on 2014, Indonesia became the country with the highest number of deaths due to accidents in the world. "In fact, based on WHO data, Indonesia reached the fifth most casualties due to accident after China, India, Nigeria and Brazil" (M. Luthfi Andika, 2014).

Oftentimes we encounter a case of death due to mismanagement when providing first aid, first aid for someone who has physical disorders either due to certain diseases or accidents should be dealt with not only fast, but also appropriate. Unfortunately, not many ordinary people have knowledge about how to help people, and even some of them do not consider it is useful and important. So thus, when a person faces a patient with specific illness condition, they do not know what to do? It may just be silent, seek help, or even provide assistance with equipment and relief mechanisms that are not necessarily true. If that happens, then there will be more possibilities that patients will experience more traumatic conditions or even increase the risk of injury and death as the worst.

First aid (P3K) is an attempt to provide first aid to a person who has an accident, injury, or experiencing a disruption to physical health prior to the intensive care of a paramedic or other

competent health worker. Before giving help, it's good to firstly know the specific things related to the victim's self, it is very useful and helpful to determine the next steps of rescue.

Basic life support (BLS) is an action to provide basic life support as soon as possible and aims to restore the respiratory and / or circulatory function of a person with breathing problem or cardiac arrest. As we know that basic requirements for life, the well conditions of circulatory function and good breathing function. If both systems are interrupted, will be able to cause cardiac arrest and stop breathing that can lead to the death of a person.Based on the background that have been mentioned above, the focus of the problem that formulated in this research is: the level of society knowledge, especially in Yogyakarta about first aid (P3K) and basic life support.

The research purpose is to know the society knowledge level about basic first aid and basic life support principles. The results of this study provide benefits, including: Provide an overview of community knowledge related to First Aid and basic life support. And hopefully, it could be one of the basic considerations for the relevant institutions, as the basis for the preparation and implementation of public health training programs in Yogyakarta.

Methods

Research method is basically a scientific way to get data with a specific purpose and usefulness (Sugiyono, 2011: 2). This research type conducted as quantitative research using survey method. Survey method or completely known as *self-administered survey* is the primary data collection method by providing questions to individual respondents. So it can be concluded that the survey is a method to collect information from groups representing a population. Meanwhile Survey sampling means survey activity using sampling, means that not all units of population are observed one by one and analyzed, nevertheless partially which represented by the sample. The sampling process used is probability sampling method. People who became subjects in the research furtherly called respondents. The respondents of this study are the general population living in Yogyakarta. The research respondents consisted of 235 people from all of the city districts in Special Region of Yogyakarta Province (five districts). The method to collecting research data is by observation. For that purposes, specific instruments are needed, including: Respondents data form and first aid (P3K) and basic life support Questionnaire.

Data collection process performed based on the following stages of implementation: firstly, to determine the research respondents, then respondents were given an explanation of the purpose and the use of research. After that, respondents fill out the data form of identity provided. Lastly, respondents answered the questions in the questionnaire related first aid and basic life support principles. After research data obtained, and then performed processing and analysis of research data. Data obtained from this research are: Respondent identity and respondent characteristics data. Data on knowledge level of first aid principles and basic life support. The analytical technique used to process the data of the research is observational statistical analysis that presented quantitatively (percentage). The results of the scores obtained from the respondents' questionnaire, then analyzed and grouped into three categories, namely:

- a. Good, if respondents get score 76% -100% of all questions
- b. Fair, if respondent get score 56% -75% of all questions
- Bad, if respondent get a score 40% -55% of all questions (Arikunto, 2010)

Results

A study aimed to knowing knowledge level of First aid (P3K) Principles and basic life support. The researcher does not impose limits or special criteria except age limits assuming that accidents or unforeseen circumstances causing harm or injury can occur anytime and anywhere. Whereas, the minimum age restriction is intended to determine the ability to provide help, and the responsibilities that are already attached to a certain age limit. The research data was collected by five students as research assistant in the field, who had previously coordinated and given supervision related to the purpose and stages of the implementation process that must be done.

Respondents Characteristics

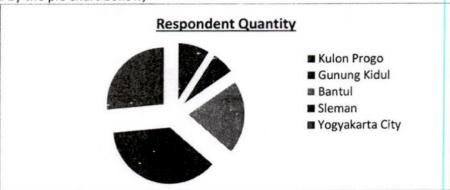
Research respondents are 235 people who live in Yogyakarta special regions province. The research data is taken incidentally by considering the diversity of residence, age, gender, occupation, and recent education in between August -- September 2016. Based on sex differentiation, the respondents' wich totaly 235 people are consisted of 116 (49.36%) men and 119 (50.64%) women. The number between is not entirely precise, because when taking the data done randomly.

Distribution of respondents by residence, divide into five groups based on the existing District in the Special Region of Yogyakarta. Although not in the same amount, but expected to make the representation of each district. Distribution of respondents can be seen in the following table:

Table 1. Respondent place of origin distribution

Districts	Kulon Progo	Gunung Kidul	Bantul	Sleman	Kota Yogyakart	
Number of Respondents	21	15	49	87	62	
Persentage	8.94	6.4	20.85	37	26.4	

Based on the table of respondents' distribution, it is clearly seen that the majority respondents came from Sleman Regency (37%), while Gunung Kidul Regency experience the lowest (6.4%). Thus easily captivated by the pie chart bellow,

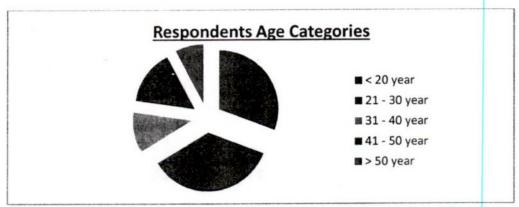


Distribution of respondents by age are grouped by five categories, the following table presents data on the age distribution of the respondents:

Table 2. Respondent age distribution

	Table 2. Respondent age distribution					
Age categories	<20 year	21-30 year	31-40 year	41-50 year	>50	year
Number of Respondent	72	83	26	35		18
Percentage (%)	30.64	35.32	11.10	14.9		7.66

It is shows that most respondents come from the age range category 21-30 years (35.32%), the lowest are respondents in the age group >50 years as much as 7.66%.

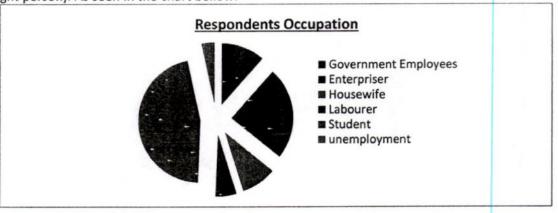


Respondents have different occupation, as illustrated in the table below:

Table 3. Respondent occupation distribution

Occupation	Government employees	Enterpriser	Housewife	Labourer	Student	unemployment
Number of Respondent	27	57	22	13	108	8
Percentage	11.5	24.3	9.3	5.5	46	3.4

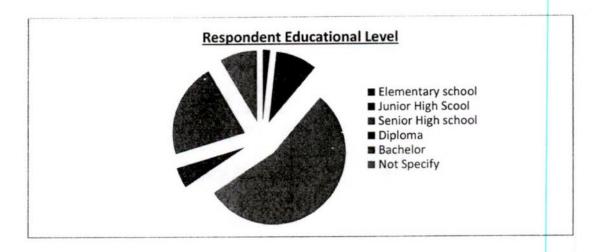
The table shows the diversity of respondents' proportion. Based on the data it appears that the highest percentage comes from the students that is equal to 46% (108 person) while only a small part of the respondents who come from the group that is not working/unemployment counted by 3.4% (eight person). As seen in the chart bellow:



Distribution of respondents based on recent education or the last education is also the researcher's point of view need to be known, because one factor that are very influential on the level of one's knowledge would be greatly influenced by educational level. It is summarized in the following table and pie chart:

Table 4. Respondent education levels distribution

	Table 4. Respondent education revers distribution					
Last Educational level	Elementary school	Junior high school	Senior high school	DIPLOMA	Bachelor	Not specify
Number of	4	22	128	11	50	20
Respondent	4	22	120	11		
Persentage (%)	1.71	9.4	54.5	4.68	21.3	8.41



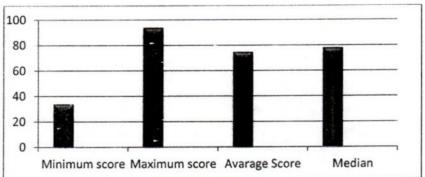
Level of Knowledge on First Aid and Basic Life Support Principles in Yogyakarta Community

The data research is discrete data which considered as nominal data, it is because each category has its own character and separated, or having no relation with other category. Based on the questionnaire given to the respondents with the total score 100 (if the answer is 100 percent true), obtained statistical data as follows:

Table 5. Respondent score

Minimum Score	Maximum score	Mean	Median	St.Deviasi
34	94	74.7	78	8.92

The table provides information about the lowest score obtained from all respondents is 34 points with a highest score is 94 points. The average value of the respondent's answer is 74.7 points, while the middle value is 78. The standard deviation of the questionnaire is 8.92. As clearly seen on the chart bellow:



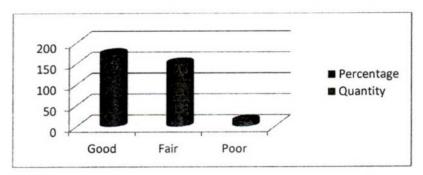
Based on scores obtained from the questionnaires given to the respondents, then grouped by three categories namely poor, fair, and good. The respondents obtained the following results:

Table 6. Score Categories

14410 01 0010 04100					
Categories	Amount	Percentage			
Good category (76-100)	121	51.49 %			
Fair category (56-75)	105	44.68 %			
Poor Category (40-55)	9	3.83 %			
Jumlah	235	100 %			

Arikunto (2010)

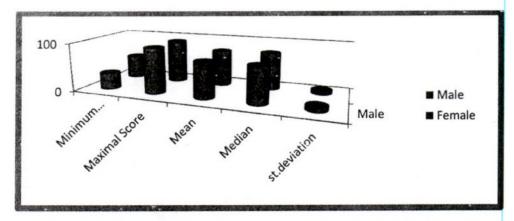
The table shows that most of the respondents have knowledge that included into good category, and only a few are included in the poor category. To make easier to identify the ratio comparison, it is depicted in the bar chart below.



Sometimes sosio-econimic either cultural background and gender differences affect the level of knowledge, attitude, and behavior. Based on the scores of respondents in the study of how knowledge of first aid and basic life support principles in the community shows the difference scores between men and women. However, the difference is not too prominent, which is seen from the difference in the average score is only 1.09 points. Acquisition of statistics based on respondent sex differentiation can be seen in the following tables and diagrams.

Table 7. Respondent score distribution

Gender	Total	Minimal	Maximal	Mean	Median
	score	score	score		
Male	7930	34	94	74.11	75
Female	8723.5	50	91	75.2	78



From the diagram, can be seen the most interesting fact is that the male respondent experienced the highest score either the lowest. The maximal score achieved by female respondents is only three points lower compare to male respondent, nevertheless, the smallest score achieved by female respondent is higher sixteen point than male.

Discussion

Knowledge and attitude is one's response to Stimulus (Covert behavior), acts (behavior) someone in response to stimuly is an over behavior one's actions (practice) a person is not based on knowledge and attitude. Knowledge is the result that occurs after the senses through seeing, hearing, smelling and feeling. Knowledge or conguitive is a very important dominant for the formation of a person's actions (covert behavior). In another sense, knowledge is the various human phenomena to encounter and acquires through the observation and analysing. Knowledge arises when a person use the senses to recognize a thing that event has never been seen or felt before.

There are two main types of knowledge viewed from the subject of explicitity: (1) Implicit Knowledge, implicit knowledge is knowledge that is still embedded in the form of one's experience and contains non-tangible factors such as personal beliefs, perspectives, and principles. A person's silent knowledge is usually difficult to transfer to others either in writing or orally. The

speaking, designing, or operating a complicated machine or tool that requires knowledge that is not always explicitly visible, nor is it so easy to transmit it explicitly to others. A person with implicit knowledge usually does not realize that actually has it and how it can benefit others. To get it, it takes learning and skill, but not necessarily in written forms. Implicit knowledge often contains habits and cultures that we do not even realize. (2) Explicit Knowledge, Explicit Knowledge is knowledge that has been documented or stored in the form of a media or the like. It has been articulated into formal language and can be relatively easily disseminated widely. Information stored in the encyclopedia (including Wikipedia) is a great example of explicit knowledge. Knowledge can also be provided audiovisual. The work of art and product design can also be viewed as a form of explicit knowledge which is the externalization of human skills, motives and knowledge.

Knowledge and attitude is one's response to stimuli and accepted by the human senses, also defined as a phenomenon encountered and obtained by human sense observation. Knowledge arises when a person uses the sense to recognize a thing or event that has never been seen or felt before. A person's knowledge is influenced by several factors, including: formal and non formal education, information from mass media, socio-cultural and economic, environmental, experience, and age. A person's knowledge of an object also contains two aspects: positive and negative aspects. These two aspects will ultimately determine a person's attitude toward a particular object. The more positive aspects of a known object, the more positive the attitude toward the object will grow.

Information that encountered in everyday life, derived from data and observations of the world around us and transmitted through communication. A person can increase knowledge even if he does not do it, because he observes the habits of others around. The economic status of a person will also determine the availability of a necessary facility for a particular activity, so that this socioeconomic status will affect one's knowledge. The environment affects the process of knowledge entrance into the individuals residing within the environment. This happens because the interaction of reciprocity that will be responded as knowledge by each individual. Age is very influential, increasingly aged will also develop the ability to catch and the mindset, so that knowledge gained better.

A person's level of knowledge will then lead to attitudes and behavior patterns, as expressed by H. Abu Ahmadi (1999: 171) which states that a person's attitude is not only shaped by internal factors, but also strongly influenced by external factors, which are the result of both, communication and social interaction. A person's motivation to have specific knowledge is also driven by need. Knowledge of health and safety is considered important, because one's primary need is to live healthy. Knowledge aims to supports and guided how to behave when there are families members become victims of accidents or health problems suddenly. Because bad things happen beyond prediction so we must not only have knowledge, but also be able to apply practically the skills we have.

Males have a higher risk of mortality from unintentional injury than females at all ages below 20 years, apart from the under 1-year olds in low and middle income countries, and for all injury types except fire-related deaths, also in low and middle income countries (WHO, 2008). It is very different from research data showing that the highest score is obtained by males, who should go hand in hand with the ability to eliminate the occurrence of injuries.

As mentioned by Lotte Newman (2009) there are many types of injuries including: Animal bites, Asthma attack, Bone, joint and muscle injuries, foreign bodies in the eye, Head injuries, Insect stings, and Burns. Those injuries are commonly happened in children as consequences of the abundance physical activity undertaken in an attempt to improve the skills and movement experience. The most commonly reported activities contributing to injuries were play, sport, and transport (Lina Gyllencreutz, Ewa R., and Britt IS, 2013). Narrowly in sport it self, The ICECI (International Classification of External Causes of Injury) define a 'sports injury event' as 'any incident taking place while participating in sports and exercise-related activities and resulting in injury' and define 'sports and exercise' as 'physical activity with a described functional purpose, for example, competition, practicing for competition, improving physical health' (WHO–ICECI, 2004)

Therefore, it is a must for people to mastering basic first aid skills. First aid (P3K) is an attempt to provide first help to a person who has an accident, injury, or is experiencing a disruption to health prior to the intensive care of a paramedic or other competent health worker. At the time before giving help it is better to firstly know the specific things related to the victim's self, which is very useful and helps to determine the next steps of rescue.

For instance, as soon as possible after an injury, such as a knee or ankle sprain, the very first to do is to relieve pain and swelling and promote healing and flexibility with RICE- Rest, Ice, Compression, and Elevation. (1) Rest. Rest and protect the injured or sore area. Immobility, or take a break from any activity that may be causing your pain or soreness. (2) Ice. Cold will reduce pain and swelling. Apply an ice or cold pack right away to prevent or minimize swelling. Apply the ice or cold pack for 10 to 20 minutes, 3 or more times a day. After 48 to 72 hours, if swelling is gone, apply heat to the area that hurts. Do not apply ice or heat directly to the skin. Place a towel over the cold or heat pack before applying it to the skin. (3) Compression. Compression, wrapping the injured or sore area with an elastic bandage (such as an Ace wrap), will help decrease swelling. Not to wrap it too tightly, because this can cause more swelling below the affected area. Loosen the bandage if it gets too tight. Signs that the bandage is too tight include numbness, tingling, increased pain, coolness, or swelling in the area below the bandage. Talk to doctor if need to use a wrap for longer than 48 to 72 hours; a more serious problem may be present. (4) Elevation. Elevate the injured or sore area on pillows while applying ice and anytime you are sitting or lying down. Try to keep the area at or above the level of your heart to help minimize swelling (NN, 2013).

Basic life support (BLS) is a handling measure to provide basic life support as soon as possible and aims to restore the respiratory and/or circulatory function of a person with cardiac arrest. Because of the basic requirements for life is the good function of blood circulation and respiratory system. The purpose of First Aid is generally devided in to two, as the following: (1) Saving lives or preventing death: by doing observation and eliminating the conditions and circumstances that threaten the victim, carry out Cardiopulmonary Resuscitation (CPR) if necessary; Seek and deal with bleeding to prevent more severe disabilities (prevent worsening conditions). Conduct diagnosis to handling the victim with priority. Pay attention to hidden conditions or diseases. (2) Supporting healing process: Reduce pain and fearness. Prevent infection. Devise a medical help and victim transportation appropriately.

The purpose of providing basic life support is to maintain adequate ventilation and circulation until a means can be obtained to alter the cause of the physical disorder (Handley, 1997). In addition, basic life support also aims for effective emergency oxygenation of vital organs such as brain and heart. If both systems are interrupted will be able to cause cardiac arrest and stop breathing that can lead to someone's death. Based on data obtained from this study, it is known that the number of deaths due to accidents or mismanagement is not due to the ignorance of the community about the principles of first aid in accidents and basic life support theories. The assumption is built on the fact that the score of the questionnaire shows the level of community knowledge of it, is mostly in the good category reached by 121 respondents from a total of 235 respondents or 51.49%. Only 3.83% of respondents are included in the poor category (9 people).

The empirical data indicate a relatively controversial fact as based on previous observations and data, showing the number of deaths from accidents in the 6th (1990) and 9th (2013) ranks of the biggest cause of death in Indonesia (Reny. YA, 2014). Although the number is decreased, nevertheless it still is being a scourge in the community. It is important for government and related institutions, and all stakeholders to conduct a study related to these issues. From the discussion, researcher suggestions are: For the community in general, to capably utilize the knowledge that practically, and to applied in everyday life. Because sometimes the knowledge is only limited to the level of theory alone, however, less implementations. For the competent academicians and experts, it is expected to continuously provide additional knowledge and train the community in general, and not only stop to the level of "knowing", but should provide guidance or assistance to the community related to implementation in the field. For relevant institutions as policy makers, in order to well

facilitate the needs of the community, including the ease to use public facilities and social facilities, and implement an effective and efficient administrative process.

Conclusions

Based on the result of the research, it can be concluded that the knowledge of first aid principles on accident (P3K) and basic life support (BLS) in Yogyakarta society generally included in good category.

Acknowledgment

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