Incorporating Technology and Ethics in Advancing Nursing Education and Practice

14 - 15 NOVEMBER 2018
PRIME PARK HOTEL
PEKANBARU
INDONESIA

RINC 2018
RIAU INTERNATIONAL NURSING CONFERENCE 2018
PROCEEDINGS
RIAU INTERNATIONAL NURSING CONFERENCE (RINC) 2018

Incorporating Technology and Ethics in Advancing Nursing Education and Practice

Editor:
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FACULTY OF NURSING, UNIVERSITAS RIAU

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(Universitas Riau, Indonesia)
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<td>Topic: The Concentric Sphere Family Environment Theory and Clinical Applications in Family Nursing</td>
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DAILY 2  
November 15, 2018
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<tr>
<td><strong>Moderator:</strong> Rismadefi Wofest, M.Biomed</td>
<td><strong>Moderator:</strong> Riri Novayelinda, MN</td>
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<tr>
<td><strong>Evaluator:</strong> Oswati Hasanah, M.Kep, Sp.Kep.An</td>
<td><strong>Evaluator:</strong> Wice Purwani Suci, M.Kep</td>
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<tr>
<td><strong>Timer:</strong> Ns. Ani Constantia, S.Kep</td>
<td><strong>Timer:</strong> Ns. Alfian Konadi, S.Kep</td>
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<td><strong>O1.02.02</strong> Maternal Age And Anemia Are Risk Factors Of Low Birthweight Newborn (Juli Widiyanto)</td>
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<td><strong>O1.02.05</strong> Influence Abdominal Stretching Exercise Against Intensity Of Dysmenorrhea</td>
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<td><strong>Evaluator:</strong> Veny Elita, MN (MH)</td>
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<td><strong>Timer:</strong> Ns. Febby Fitriani, S.Kep</td>
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<td>Moderator: Erika, M.Kep, Sp.Mat</td>
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<td>Evaluator: Rismadefi Woferst, M.Biomed</td>
<td>Evaluator: Febriana Sabrian, MPH</td>
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<td>Timer: Ns. Ani Constantia, S.Kep</td>
<td>Timer: Ns. Alfian Konadi, S.Kep</td>
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<td>Effect Of Health Education Using The Redi Game Towards Knowledge In Preventing Premarital Sex Behaviors Of Female Teenagers (Pratiwi Ningsih)</td>
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## RIAU INTERNATIONAL NURSING CONFERENCE 2018
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#### DAY 1, NOVEMBER 14, 2018
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Prior to the session:
- Evaluator should come to the Scientific Corner no later than 10 minutes prior to the session to obtain a poster presentation map and scoring rubric and fill out the presenter name, number, and presenter name on the poster presentation scoring rubric before the session begins.
- Presenter/author should stand by at their posters display 5 minutes before poster session.
During and at the end of the session

- Presenter/author presents their posters to evaluator.
- Evaluator will have maximum 10 minutes to have a discussion with the presenter and to evaluate the poster according to the scoring rubric.
- Presenter/author will not be allowed to use computers or other electronic devices during presentation.
- Evaluator delivers the scoring results to the student in charge.
CONFERENCE CHAIR MESSAGE

A warm welcome to the participant of conference. The theme of Riau International Nursing Conference 2018 (RINC 2018) is incorporating technology and ethics in advancing nursing education and practice. This conference will provide an opportunity for health researchers, health practitioners, nursing educators and nursing students to exchange research evidence, practical experiences and innovative ideas on issues related to nursing technologies and ethics through networking and mutual sharing. It is a global platform to explore issues of mutual concern as well as the exchange of knowledge, share evidence, ideas, and knowledge.

The main conference aim is to improve the quality of science and profession in nursing throughout integrating technology and ethics in order to increase nurses’ competencies for services, education and nursing research. Researchers and academics from different health science backgrounds will deliver a scientific forum that enable an interactive and exchange knowledge.

It is a great chance for all participants to experience the opportunity to learn from speakers who expert in various fields of the nursing science. It is an honour to serve all speakers and participants from all nations with the taste of friendly and scientific environment.

We look forward to meet you at the conference.

Warm Regards,

Ns. Agrina,M.Kep.,Sp.Kom.,PhD
Chairman of RINC 2018
GREETINGS FROM ACTING RECTOR, UNIVERSITAS RIAU

WELCOME SPEECH

Distinguished participants,
Ladies and Gentlemen:

It gives me a great pleasure to welcome all of you to the International Conference Nursing Conference RINC 2018 in Universitas Riau, Pekanbaru: “Incorporating Technology and Ethics in Advancing Nursing Education and Practices”.

Nowadays, nursing in Indonesia is tremendously developing in all aspects including academics and practices. The use of technology is undeniably significant in the work of nurse educators and practitioners. Incorporating ethics to these aspects will ensure nurses to provide best healthcare services delivery.

I would like to take this opportunity to express my sincere appreciation to conference committee for organizing this remarkable event and in particular our honorable speakers. All of them have been working hard, even though they are very busy with their responsibilities.

Finally, I wish all two fruitful days of interesting and beneficial conference and also that you have a pleasant stay in Pekanbaru.

I warmly welcome you again,

Dr Ir Agus Indarjo, MPhil
Acting Rector, Universitas Riau
WELCOME MESSAGE

On behalf of the Faculty of Nursing, Universitas Riau, Pekanbaru, I warmly welcome all distinguished invited speakers and all participants to the Riau International Nursing Conference (RINC) 2018 in the land of Malay city of Pekanbaru. The RINC 2018 is very special to Universitas Riau in particular to Faculty of Nursing. This conference is part of the 56th anniversary of Universitas Riau and it also allows opportunity to celebrate the existence of the Faculty of Nursing, Universitas Riau to the world. The conference theme, “Incorporating Technology and Ethics in Advancing Nursing Education and Practice”, has been wisely selected to mark nursing education and practice milestone.

This conference plays a significant role in the nursing academia, particularly for nurses, clinical nurses, nurse educators, health practitioners and nursing students in particular in Indonesia and around the globe. This is the perfect time to build research connection and share knowledge from different perspectives of nursing research, clinical and education. I am sure that the Riau International Nursing Conference 2018 brings impact and significant contributions to the development of nursing profession both locally and internationally.

My best wishes for the successful of the Riau International Nursing Conference 2018. I hope all participants have productive time during the conference and find the conference stimulating and enjoyable.

Sincerely,

Prof. Dr. Ir. Usman M. Tang, MS
Dean of Faculty of Nursing, Universitas Riau
Technology, particularly information and communications technology (ICT), has transformed our world. In the early 1990s, the Internet was something new. Yet, nowadays, to a huge number of people, life seems unimaginable without a smart phone. Humankind has reached a digital age. While human life has become much easier in numerous ways with the adoption of technological innovations, the endless pursuit of new technologies has its limitations and perils. The more we invest in technology, the more blurred the boundaries seem to become between the physical and virtual worlds.

A key challenge faced by governments around the world these days is how to care for fast-ageing and increasingly large populations in a rapidly changing and digitally connected world. Most certainly there have been useful advances in using ICT in health care. For instance, the use of cloud technology has greatly enhanced the development and uptake of telemedicine and telecare. However, older adults do not necessarily need cutting-edge technology. Day-in and day-out, older adults do not always need state-of-the-art medicine to attain good health and have a better quality of life. Even in times of sickness, appropriate quality care provided in a timely manner is often more relevant and meaningful to older adults and their families than the latest medical advances.

This paper will discuss current trends in gerontological nursing as well as what is needed in the daily care of this particular client population. Issues of technology versus humanity will be explored. The author suggests that health professionals and nurses need not take one stance over another. Rather, we need to become better engaged in the use of technology in the delivery of nursing care, while at the same time upholding key values in nursing to serve humanity.
Nursing and Health Informatics in the Fourth Industrial Revolution

Michael Joseph S. Diño, PhD, MAN, RN, LPT
Director, Research Development & Innovation Center, Our Lady of Fatima University, Philippines
Advisory Board, Apple Distinguished Educators
Vice President, Phi Gamma Chapter, Sigma Theta Tau International Honor Society in Nursing

Session Abstract

The Fourth Industrial Revolution (4IR) generated a considerable interest among scholars, informaticist and educational leaders around the globe. This industry shift brings with it exciting opportunities and inevitable challenges to various industries and professional practice including the health sciences. The fundamental framework of developing innovative learning ecosystems (e.g. big data, artificial intelligence, robotics, smart technology) poses great value as Nurses and Nursing prepares for the impact of the 4IR. Also, the long-standing notion that Informatics as a catalyst to enhance practice, study clinical problem-solving, inform policy briefing, and enrich research activities directed to improve the quality of care has been an expectation and an envision to many. Healthcare leaders, educators, and researchers have recognized the need for every practitioner to participate in Informatics, that is, the use of information and communications technologies in the collection of data, use of information and generation of knowledge to support healthcare practice. Informatics competencies are increasingly becoming a global imperative for professionals in the healthcare field. This session will highlight the historical developments in the evolution of industries, technologies in healthcare praxis and the associated discoveries and scientific work. This also aims to juxtapose current and impending trends and their impact on the healthcare sector. Grounded on the UNESCO pillars: Learning to Know, Learning to Do, Learning to be and Learning to Live Together as universal concepts, the session will recommend several creative and proactive solutions in preparing for, creating new technologies and mitigating the effects of the upcoming revolution through health and nursing informatics.
Incorporating Technology and Ethics in Advancing Nursing Education and Practice

Prof. Datuk Dr Hjh. Bibi Florina Abdullah
Pro-Chancellor, Lincoln University College

In present dynamic health systems, technology plays a vital role in education and nursing occupation. The major fundamentals are in the fields of healthcare promotion, internet, network and advanced systems. The nurses must receive essential IT training in all their respective field of specialization.

Technology removes the traditional boundaries of space and time. Nurses to use these innovations to provide best proven care and knowledge from academic research. Nurses must be prepared to lead this technology-driven health care system

Nurses have become competent of exploiting and disseminate the multifaceted technology into nursing caring practice from long before. Different type of machinery like ventilators and physiological monitors were used for years by nurses in intensive and critical care settings.
Developing Successful Academic Researches in Advancing Nursing Education and Practice: Harnessing ICT, Global Databases and Research Engine

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Abstract
Nowadays, people deal with technology in many aspects of our life. Artificial Intelligent in various devices, Big Data the which produced every moment and Internet of that surrounded us in all our needs. There are a variety of areas where nurses can get advance practical and specialize in and they may decide they want to be qualified in one or several specialties over the course of their career. This work aims to give a brief idea about the ways for harnessing this triangulation in conducting your research in an easy and fast and accurate manner. To achieve these gals a descriptive methodology has been used for presenting the data in the various manner of troubling, chart figures and animations. The outputs have been covered a key related point which opted to be closely related to the conference slogan. These topics covered the techniques of developing successful academic researchers in advancing nursing education and practice with focusing on the Global Data and Big Databases which most important part of the academic research. In addition to the theoretical parts, the practical parts have gained the core portion of this work, especially the big databases research engines. More than five international databases have been taken as examples for creating academic evidence and support argument for finding the research gap. The popular databases were (1) The World Bank database, (2) The United Natation Data Base, (3) Global Competitiveness Index Data Base, (4) The Global Innovation Index Data Base, And (5) Trend Economic Data Base. The suggestions were emphasizing on conduct more research and deep learning on various levels of public databases for harnessing these resources for more research and monitoring our situations comparing with our neighbour countries.

Keywords: ICT, Global Databases, Research Engine, Big Data, Academic Research, Nursing Education.
1. Current status of family nursing in Japan

1-1. Differences between individual nursing and family nursing

In North America in the late 1970s, family nursing aimed at the entire family began to be advocated and since then the concept has spread throughout the world. In Japan, the Department of Family Nursing with three faculty members was newly established at the University of Tokyo in 1992, making it the starting point for family nursing in Japan. The study expanded rapidly as a practical science. I was one of those founding members. Currently family nursing studies has become established as one of the fields of specialization within nursing studies.

Family health care nursing can be defined as, "With the nursing professional as the nucleus, the practical science of independently and autonomously maintaining and improving family functioning by the family system unit, and of preventative and therapeutic support to deal with family signs/symptoms in order to help enabling self-actualization of the family system unit." Nursing can be divided into the major categories of individual nursing (nursing for family members) and family nursing. Individual nursing targets individuals such as patients or users, and so on, while the paradigm of family nursing differs in that it targets the entire family.

1-2. Development of the Concentric Sphere Family Environment Theory (CSFET)

From 1999, I began development of a middle-range family nursing theory. At present the Concentric Sphere Family Environment Theory (CSFET) that I proposed has become familiarized on a worldwide basis. Based on the CSFET, such tools as the Family Environment Assessment Model (FEAM) and Family Environment Care/Caring Model (FECCM) have been developed, and are widely utilized in both research and practice.

2. The role of certified nurse specialist in family health nursing

2-1. The current status of advanced practice nurse (APN) in Japan

In Japan, certification of registered nurse (RN) is obtained upon completion of a four-year program at the university. In addition, RN certification can be obtained from attendance at occupational training schools and others. However this field has rapidly
shifted to universities, and currently 277 universities (broken down as 44 national universities, 49 public universities and 184 private universities) offer programs leading to RN.

In addition degrees as advanced practice nurse (APN), including certified nurse specialist (CNS) and nurse practitioner (NP), which require two years of education at the postgraduate master's level, can be obtained. The CNS program began from 1995 with a requirement of 26 credits and currently 2,067 individuals have obtained this degree. Programs leading to an NP degree only commenced from 2016, and the method for certification and so on is presently under review.

A nursing professional with CNS can be described as having outstanding practical skills in specific fields of nursing. CNS exists in the field of family nursing studies as well, where it is referred to as certified nurse specialist in family health nursing. CNS consists of six distinct roles: Excellent nursing practice, consultation, collaboration, ethical coordination, education and research. From 2011, 38 credits of training that combines curing and caring was initiated, with CNS also seeking the practice of curing.

As of October 2018, 55 individuals have been certified with the degree of certified nurse specialist in family health nursing. The curriculum leading to nurse specializing in family support is offered at six universities, one of which is my institution, Kobe University, which also has the distinction of being the first in Japan to provide education offering caring and curing.

2-2. **Role of certified nurse specialist in family health nursing**

The certified nurse specialist in family health nursing performs six roles aimed at the entire family, which are as follows.

2-2-1. **Excellent nursing practice toward the family**

Support toward all families so as to enable the maintenance and realization family well-being.

2-2-2. **Consultation toward multiple occupations (other occupations)**

Conduct consultation toward multiple occupations (other occupations) related to family signs/symptoms.

2-2-3. **Collaboration with other individuals involved in medical treatment and welfare**

Perform adjustments with multiple occupations (other occupations) related to family signs/symptoms.

2-2-4. **Ethical coordination of those involved**

To safeguard the human rights of families and family members, to have the capability to make the necessary ethical decisions, and act accordingly.

2-2-5. **Education toward multiple occupations (other occupations)**

Conduct education toward multiple occupations (other occupations) related to family signs/symptoms.

2-2-6. **Research into family health nursing**

Produce evidence into family health nursing and conduct practical research that contributes to advancing the family nursing theory.
3. The technology of family support

3-1. Fusion of cure and care

Family nursing is a human-oriented support that mainly deals with mutual transaction between the entire family and those who provide support to the family. The relationship between the two is deployed by means of family meetings, leading to changes in relationships within the family. This makes it a method of family support that makes possible resolution of family problems that enable the family to realize a healthy livelihood. Consequently, communication is more important than technology.

The certified nurse specialist in family health nursing is not only able to provide care, but cure as well. In particular, he or she performs health assessments on family members and is required to have the ability to assist all family members in maintenance and improvement of health. To enable this, mastery in the fields of physical assessment, physiology and pharmacology is required. For this education, laboratories catering to high levels of skills are in use.

3-2. Construction of electronic family nursing studies

In 1994 I established the Japanese Association of Computer Science (JACS), and served as its director. From that time how to recognize vital signs, computer-assisted instruction and others were developed. While harnessing this knowledge, in the field of family nursing I proposed electronic family nursing studies and made efforts to bring this about. At present, the following are in practice for families and nursing professionals.

3-2-1. CSFET-based Family Nurse Consultation Service

For family members struggling to deal with family-related problems, a Family Nurse Consultation Service has been initiated on the campus of Kobe University. Specialized nursing professionals offer guidance to resolving problems at no charge, so please feel welcome to visit for a consultation.

3-2-2. The Society for the Study of the Concentric Sphere Family Environment Theory (SSCSFET)

With the aim of upgrade of the Family Environment Assessment Model (FEAM) and Family Environment Care/Caring Model (FECCM), which are based upon the Concentric Sphere Family Environment Theory (CSFET), for use in clinical applications, empirical research and others, the SSCSFET was established in 2007. In addition to conducting seminars, case study discussions and others, programs are offered leading to certification as Certified Intermediate Specialist in Family Support (CISFS) and Certified Advanced Specialist in Family Support (CASFS). At seminars and case study discussions, when individual data is not included, Zoom video conferencing software is utilized to enable long-distance participation.

3-2-3. Family Nursing Consultation

Through the use of mobile phones and video conferencing software, the service, aimed at nursing professionals having difficulties providing support to families, conduct consultations and supervision. All utilization of the consultations and contents thereof are treated with complete confidentiality. Zoom video conferencing software requires no special settings and can be utilized free of charge. Interested parties are requested to contact me via email.
3-2-4. Family Nursing Webinars

I also offer a free online seminar (webinar) on family support utilizing the CSFET via Zoom Video Webinars. The Zoom video conferencing software requires no special settings and can be used free of charge. Interested parties are requested to contact me via email.

3-2-5. Others

Based on the CSFET, the Survey of Family Environment (SFE) was developed as a self-administered measurement of family functioning and family demands. There is also an electronic version of the SFE that can be accessed via mobile phones, from a web site and so on. The SFE enables screening of dysfunctional families --- which, for example, provides or use at the time of hospitalization or at the start of home visit nursing. Also, diagnosis of family functioning via the internet, and screening of problem families can be performed, enabling detection of latent family problems.

Health assessment via internet telephones is important as a method for the so-called "four examinations in traditional Chinese medicine (seeing, hearing, asking, touching)." For example, for determination of facial pallor, it is important to have faithful rendering of the color. In this regard, from the year 2000 I became director of the Digital Biocolor Society, and have been conducting research.

4. Ethics for family support

4-1. Ethics toward people and groups

The family support nursing professional, to safeguard the rights of families and family members, strives to resolve ethical problems and complications, and performs the role of making ethical coordination between persons related to the ethical problems and complications. Family health care nursing is aimed at the entire family, for which it is necessary to adopt a multidimensional perspective involving the family internal environment, family system unit, family external environment and family chrono environment. These contain diversity, and it can be presumed to also contain possible contradictions. Consequently, problems occur due to the opposing advantages and disadvantages or privileges. One of the roles with the highest importance performed by the family support nursing professional in particular is ethical coordination, by which, as an advanced practice nurse, carefully considers clinical decisions and ethical decisions, which is important when providing nursing.

Moreover, the family support nursing professional occupies the standpoint of being the greatest protector from the family's standpoint, and is responsible for putting the family's livelihood in order, as well as the standpoint of respecting the patient/user and entire family's values and make adjustments so that these may be realized. For this purpose as well, the nursing professional him or herself, as an individual as well as a specialist, while asking questions concerning the values of the patient/user and entire family, it is important to provide and share verbal explanation so that other medical professionals can comprehend in order to resolve other ethical issues. Ethical principles or ethical problems that have not been verbalized up to now, and specialized values are verbalized by the
nursing professional him or herself, and through discussion of the ethical issues between medical professionals that involve the patient/user and entire family, and providing of care based on those results, the quality of care can also be improved.

References:
Ethical Issues in Education, Practice, and Research in Nursing and Midwifery

Asst.Prof. Dr. Sopen Chunuan, PhD., APN. (Midwifery), RN.

Ethics has been defined in many different ways. Ethics is now recognized as a major part of education, practice, and research. Ethics are the norms or standards for conduct that distinguish between right and wrong. It is a system of moral values that is concerned with the degree to which nursing care process and research procedure adhere to professional legal, and social obligations to clients or participants.

Ethics and education: The nursing profession focuses on practice with human beings. Nursing means actions to people, related to caring and helping when they are sick, including rehabilitation, disease prevention and health promotion, as well as assisting physicians to perform curative treatment. In doing so, it shall be based on scientific principle and the art of nursing. Ethical education plays important role in fostering nursing students to be moral agent. The major goals of ethic teaching are enhancing students' skills on moral sensitivities, moral judgment, moral judgment motivation, and moral action. Nursing institutions should recognize their roles in promoting ethical teaching of nurse educators based on ethical principles of beneficence, non-maleficence, respect of autonomy, just, veracity, and fidelity. In addition, nursing institutions should also provide specific ethical course with essential contents such as ethical theories, ethical principles, ethical concepts, code of ethical, moral development, values and beliefs, ethical dilemmas, and ethical decision making. These contents must be integrated in professional nursing courses throughout the nursing curriculum by applying various ethics teaching methods such as analysis, ethic conference, and ethics rounds. In order to provide effective ethics education, nurse educators must be students’ role model and having moral competence. Nursing students practice closely with nurse educators to ensure their ethical practice with professional standard which will be results in patients’ best interest and safety.

The Qualifications Framework for Thailand’s higher education system is designed to support implementation of the educational guidelines set out in the National Education Act, to ensure consistency in both standards and award titles for higher education qualifications, and to make clear the equivalence of academic awards with those granted by higher education institutions in other parts of the world. Programs developed within this framework should not only lead to the knowledge, generic skills and professional expertise normally associated with studies leading to comparable awards throughout the world, but should also include particular emphases reflecting the policy priorities of Thailand. The
framework groups the kinds of learning expected of students into five domains and describes learning outcomes at each level in each of these groupings. The domains are: (1) Ethical and Moral Development, (2) knowledge, (3) cognitive skills, (4) interpersonal skills and responsibility, and (5) analytical and communication skills.

Ethical and moral development: Development of habits of acting ethically and responsibly in personal and public life in ways that are consistent with high moral standards; ability to resolve value conflicts through application of a consistent system of values. Learning outcomes for ethical and moral development are expected to apply at the level described for all learners, though there are also some field specific items of knowledge that should be known by students in those fields such as codes of ethical practice for nursing, medical doctors, accountants, lawyers, etc.

For ethical and moral development, this involves a combination of knowledge about appropriate behavior and formal and informal codes of practice, attitudes, and maturity of judgment. Development strategies may include exposure to positive role models and analysis and reflection on their own behavior and that of others in a variety of situations. Group discussions of simple and more complex moral dilemmas can help students clarify their own values and think through general principles that they believe should guide their own behavior. The principles of transfer of learning call for discussions of a wide range of possible situations including ones that are similar to those likely to be faced by the students in later life and employment. While special attention to this domain may be given in certain courses, it is important that opportunities are taken in all courses to reinforce and apply the principles developed.

In Faculty of Nursing, Prince of Songkhla University; all nursing programs have been developed and modified based on the Qualifications Framework for Thailand’s higher education system. Ethics has been taught in all subjects both theories and practicums course to prepare nursing students provide quality of care and safety to their clients.

Ethics and practices: Nurses as one of the health service providers and members in health system who are responsible for giving care to the clients and patients based on ethical issues. They need ethical knowledge to conduct their appropriate function to manage situations and to give safe and proper legal and ethical care in today’s changing world. Professional practice of nursing means practice of nursing to individual, family and community in the following actions: (1) to provide education, advice counseling, as well as solving health problems; (2) the act asset individual physically and mentally, including their environment, in order to solve problems of illness, alleviate symptoms, prevent dissemination of disease and provide rehabilitation, (3) provide treatment, as mentioned in primary medical care and immunization; and (4) to assist physicians to perform treatments. These actions shall be based on scientific principle and art of nursing in performing health assessment, nursing diagnosis, planning, and nursing intervention.

Nurses play a role as advocates to assist patients and families struggling with complex information and difficult decisions. In particular, the fact that nurses encounter clinical situations that require ethical judgment highlights the need for nursing staff to gain knowledge and expertise in delivering care in an ethical manner. Nurses and midwives in Thailand work following the Professional Nursing and Midwifery Act that has been
established sin 1985. Nurses have to face ethical problems and deal with moral conflicts especially in everyday practices. Nurses have responded to solve ethically problematic situations by active acting. Dealing with ethical problems nurses must blend the principles of ethics in nursing practice, an ethical decision making model and cultural competence.

Ethics and research: In any research with human beings or animals, research must address ethical issues. Ethical demands can be challenging because ethical requirements sometimes conflict with the desire to produce rigorous evidence. Ethical considerations in research are critical. Research ethics involve requirements on daily work, the protection of dignity of subjects and the publication of the information in the research. However, when nurses participate in research they have to cope with three value systems; society; nursing and science which may be in conflict with the values of subjects, communities, and societies and create tensions and dilemmas in nursing. The major ethical issues in conducting research are: a) Informed consent, b) Beneficence- Do not harm c) Respect for anonymity and confidentiality d) Respect for privacy. Ethical considerations in nursing research have been grown in recent years to prevent biases and harm to participants. Thus, a formal review by ethics committee is usually required before conduction nursing research to promote and protect participant’s’ rights.

References
The Importance of Ethics in Nursing Practice

Wan Nishfa Dewi, M.Ng, Ph.D

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Abstract

Nurses all around the world are increasingly encountered ethical challenges in their patient care practice. They are obviously faced with different ethical problems in their professional practice, therefore they must understand and familiar with ethical codes of conduct and the importance of ethical decision-making. As a professional profession, there is a need for nurses to acknowledge the important of ethics which are fundamental guidance for them. This article attempts to discuss the importance of ethics in the perspective of nursing practise. One of the focuses of this article is on the main concept of ethics to deliver nursing practice in the healthcare setting.

Keywords: Nursing, Ethics, Health care, Nursing practice, Profession
Breastfeeding has several health benefits on both the mother and infant and also it recognized as the best food for the baby. In order to receive the optimum benefits from breastfeeding, a period of exclusive breastfeeding for six months, with continued breastfeeding up two years is recommended by the World Health Organization (WHO). However, many breastfeeding mother experience insufficient milk production during the breastfeeding period eventhought the rate of physiological inadequate milk production is very low. Commonly reported reason for unsuccessful breastfeeding or early weaning is perceived insufficient breast milk supply. Believing that milk production is inadequate is associated with early introduction of supplemental feeding, which ultimately leads to less frequent breastfeeding and to a decrease in milk production over time. Furthermore, since consumption of complementary baby milk is associated with increased morbidity and mortality among infants, low breastfeeding initiation and duration rates are significant concern in many countries. Although the prevalence of low of breast milk production is only experienced by a few mothers, however it can be prevented through out several complementary therapies after the beginning of birth. Some studies show that complementary therapies influence to increase milk production like herb and massages therapy. Studies evaluating show that one of the reasons for early introduction of suplementary baby milk such as lack of effective support by primary care providers besides another reasons. The primary care provider like community health nursing is the first line responder to maternal concerns about the adequacy of milk production.
LIST OF ORAL PRESENTATION
THE RELATIONSHIP BETWEEN PARENTS’ VERBAL ABUSE AND EMOTION REGULATION IN ADOLESCENTS

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Abstract

Objective: This study aims to determine the relationship between verbal abuses of parents and emotion regulation in adolescents. Method: The design of this research is descriptive correlation research with cross sectional approach. The sample was 256 students of Public Junior High School 23 Pekanbaru, that were taken using stratified random sampling technique. The instruments were verbal abuse of parents and emotion regulation questionnaires that had been tested for validity and reliability. The analyses used were chi-square and spearman tests. Results: The result showed that there is a significant relationship between verbal abuse of parents and emotion regulation in adolescents (p value < 0.05). Conclusions: It is expected for parents not to do verbal abuse, because it can impact on teenage emotion regulation.

Keywords: Emotion regulation, adolescents, verbal abuse of parents.

Introduction

There has been occurred lately an apprehensive phenomenon due to lots of reportages from online or printed media about child abuse. The problem of violence to children is really familiar to us because there are still many cultures in our society assuming that learning for children is conducted by violence. The rate of violence cases against children is increasing every year. Based on data from the Indonesian Child Protection Commission (KPAI), the reports of violence in 2014 has reached 5,066 cases. (KPAI, 2015).

Many parents assume that violence against children is a general thing and do not understand that verbal violence will have a negative effect on children. According to Asih (2010), there are 4 impacts of verbal abuse, namely the psychical, psychological, spiritual and social impacts of the victim. Emotions of teenagers that explode and in improper situation will lead to inappropriate behavior, so it needs a strategy or a way to be applied in dealing with the emotional situation. It is usually called emotional regulation. Emotional regulation is a common term used to describe a person's ability to manage and respond effectively to emotional experiences (Rolston & Richardson, 2017).

The purpose of this study was to determine the relationship between verbal abuse of parents and emotion regulation in adolescents. This research was expected to add insight and knowledge, especially about verbal abuse of parents with emotional regulation in adolescents

Method

This research was carried out at SMP N 23 Pekanbaru which started from February to July 2018. This study used a descriptive correlational research design with cross sectional approach.

The population in this study was the VIIth and the VIIth grades students of SMP N 23 Pekanbaru which consisted of 709 students; 332 students were from the VIIth
grade and 377 students were from the VIIIth grade. The sample was 256 students taken by stratified random sampling.

The instruments utilized were questionnaires about parents’ verbal abuse and emotion regulation in adolescents. Univariate and Bivariate analyses were applied in this study. The univariate analysis described the characteristics of respondents regarding age, gender, order of children, ethnic, parental work, and parents’ education level. Bivariate analysis was used to determine whether there was a significant relationship between the two variables using the Chi-square and the Spearman tests.

**Result**

1. **Univariate Analysis**

Table 1

<table>
<thead>
<tr>
<th>No</th>
<th>Parents’ Verbal Abuse</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>High</td>
<td>130</td>
<td>50,8</td>
</tr>
<tr>
<td>2.</td>
<td>Low</td>
<td>126</td>
<td>49,2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>256</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that the highest respondents who experienced parents’ verbal abuse in high category were 130 people (50,8%).

Table 2

<table>
<thead>
<tr>
<th>No</th>
<th>Emotion Regulation of Adolescents</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Maladaptive</td>
<td>111</td>
<td>43,4</td>
</tr>
<tr>
<td>2.</td>
<td>Adaptive</td>
<td>145</td>
<td>56,6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>256</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that the highest respondents who used adaptive emotion regulation were 145 people (56,6%).

2. **Bivariate analysis**

This analysis used Chi-square and Spearman statistical test. Chi-square test was used to determine the relationship between independent variables (verbal abuse of parents) and the dependent variable (emotion regulation in adolescents) in SMP N 23 Pekanbaru. While, Spearman test was applied to know the significance of the relationship between variables.

Table 3

Chi Square Test

The Relationship between Parents’ Verbal Abuse and Emotion Regulation in Adolescent (N=256)

<table>
<thead>
<tr>
<th>Parent’s Verbal Abuse</th>
<th>Emotion Regulation</th>
<th>Total</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Maladaptive</td>
<td>80 (61,5%)</td>
<td>0,000</td>
</tr>
<tr>
<td></td>
<td>Adaptive</td>
<td>50 (38,5%)</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Maladaptive</td>
<td>31 (24,6%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adaptive</td>
<td>95 (75,4%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>111 (43,4%)</td>
<td>145 (56,6%)</td>
</tr>
</tbody>
</table>

Table 3 shows the results of chi-square statistical test obtained P value = 0.001 < α = (0.05) so it could be be concluded that there was a significant relationship between verbal abuse of parents and emotional regulation in adolescents.

Table 4

Spearman Test

The Relationship between Parents’ Verbal Abuse and Emotion Regulation in Adolescent (N=256)

<table>
<thead>
<tr>
<th>Parents’ Verbal Abuse</th>
<th>Emotion Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>-0,372</td>
</tr>
<tr>
<td>p</td>
<td>0,000</td>
</tr>
<tr>
<td>n</td>
<td>256</td>
</tr>
</tbody>
</table>

Table 6 shows the results of the Spearman test obtained P value = 0,000 < α = (0,05) so it could be concluded that there was a relationship between verbal abuse of parents and emotional regulation
in adolescents. Coefficient correlation of Spearman test was $r = -0.373$ showing weak relationship with irregular or non-linear scattering position. There was a negative relationship, which means the higher verbal abuse of parents, the lower emotional regulation is.

**Discussion**

1. Characteristics of Respondents
   a. Characteristics of Parents’ Verbal Abuse

   Verbal abuse occurs because parents assume that verbal violence has a lighter impact than physical violence. This is consistent with the results of this study where there are five forms of verbal abuse studied and denouncing the children is the most experienced by adolescents. According to Lestari (2016) the habit of denouncing a child is an act like telling a child that everything that happens is their mistakes.

   b. Characteristics of Emotion Regulation in Adolescents

   Adaptive emotional regulation will help a person to think positively in dealing with an event, while maladaptive emotion regulation will make a person tend to think negatively when facing an event (Silaen & Dewi, 2015).

   Based on the results of this study where of the six emotion regulation strategies studied, problem solving strategy is the strategy that are often used by teenagers. Problem solving is an adaptive strategy that is done by a person by changing the stressful / depressed situation by doing an action / step by brainstorming and planning actions to find solutions (Aldao et al, 2010). This is a good strategy because someone who experiences a problem will solve the problem by thinking and planning the further solution.

2. Bivariate Analysis

   Bivariate analysis was applied to see the relationship between variables. Based on the data that has been processed using a computer statistical program using the chi-square test obtained p-value (0,000) < $\alpha$ (0,05), then Ho is rejected and it can be concluded that there was a relationship between verbal abuse of parents and emotion regulation in adolescents at SMP N 23 Pekanbaru.

   Based on the Spearman test results obtained $P$ value = 0,000 < $\alpha$ = (0,05) it can be concluded that there was a relationship between verbal abuse of parents with emotion regulation in adolescents. The coefficient correlation of Spearman test was $r = -0.373$, it showed a weak relationship with irregular or non-linear scattering position. There was a negative relationship, which means the higher verbal abuse of parents, the lower emotion regulation.

   Verbal abuse is a form of violence that leaves no evidence comparable to physical bruising (Noh and Talat, 2012). Although verbal violence does not leave a sign or evidence in the victim's body, the victim who gets verbal abuse will suffer and has low self-esteem. It is as reported by Nidya's (2014) stating that the higher teenagers get verbal violence from their parents, the lower their confidence will be. Conversely, the lower the teenagers get verbal abuse from their parents, the higher their confidence will be.

   Teenagers who get verbal violence from their parents will experience an uncomfortable situation at home. Teenagers will feel inferior and feel not accepted by their parents. When a teenager experiences insecure and fear, his biggest enemy is their self-confidence. This is as stated in Asih's research (2010), the psychological impact felt by adolescents when they get verbal abuse, namely the decreased of self-confidence such as shame, emotion, anger, depression, experiencing excessive fear, severe anxiety and lowering the dignity of the victim himself. In addition to these impacts, the long-term impact of verbal violence will lead to a chain of violence in the family.
Teenagers who experience verbal abuse will feel negative emotions when they get a shout from their parents. This is in line with research by Putrawan, Aniroh, and Choiriyah (2016) stating that there is a significant relationship between verbal abuse and emotional development in children. Children who get a shout or threat from their parents will cause emotional injury to the child who experiences it, that it will distract the child's emotional development. The more often children get verbal abuse, the less they will be in their emotional development. This makes the child more often confine himself, filled with sadness, fear, lack of confidence and the child will become aggressive or angry so that the child's emotions become disturbed and tend to use harsh words on his friends. Later, children who experience verbal violence will imitate similar things to their children when they become parents (Munawati, 2011).

Conclusion

The results of the study showed that the respondent who experienced high verbal abuse was as the highest number consisted of 130 people (50.8%) and 145 (56.6%) respondents used adaptive emotion regulation. Based on the results of chi-square statistical tests showed that the P value = 0,000 < α = (0,05) it can be concluded that there is a significant relationship between verbal abuse of parents with emotion regulation in adolescents.

Acknowledgements

Researchers express the highest gratitude for the guidance and assistance from various parties in the completion of this research.

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THE RELATIONSHIP OF THE GENDER WITH EMOTION REGULATION IN JUNIOR HIGH SCHOOL STUDENTS

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Abstract

Objective: Characteristics of junior high school students are not able to regulate emotions well. One of the factors that affect a person's emotions of regulation is gender. Method: this study applied a descriptive correlation study using cross sectional approach, with 165 respondents. The measuring instrument used in this research was the questionnaire for gender and emotional regulation variables. Data were collected using questionnaire that has been tested for its validation and reliability. Data analyzes used were descriptive analysis to see the percentage of each variable and using Chi-Square to see the correlation between variables. Results: The research of the relationship of the gender with emotion regulation behavior showed P value = 0.073> α = 0.05, so it could be concluded that there was no significant the relationship of the gender with emotion regulation in junior high school students. Conclusions: The research can be used as a base of information and increase of knowledge about gender and emotional regulation.

Keywords: Emotional regulation, gender, students of junior high school.

Introduction

Emotion regulation is the process of intrinsic and extrinsic to control and adjust the emotions that arise to achieve a goal that includes the ability to manage feelings, physiological reactions, the way people think, and emotional responses such as facial expressions, mannerisms, and tone of voice as well as to quickly cool down after losing control or emotions felt (Habsyi, 2015).

Junior high school students are students who are in the age range 12-15 years. Stage of development of secondary school age children is considered at this stage of adolescent development (Desmita, 2011). Adolescence is a period of transition from childhood to adulthood. At this time they experienced many emotional instability that could trigger the behavior of juvenile delinquency (Kartono, 2014).

Salovey and Sluyter (in Nisfiannor & Kartika, 2004) says that girls are more looking for support and protection from others to regulate their negative emotions, while boys use physical exercise to regulate their negative emotions.

Researchers conducted a preliminary survey on January 22, 2018 researchers interviewed counseling teachers and 10 students about the students' emotion regulation in junior high school PGRI Pekanbaru. Results counseling teacher interview, she said the emotion of most students at junior high school PGRI very unstable. The students have not been able to regulate their emotions. They are irritable and easily repay their friends. The results of the interview on 10 students are three students said they would be patient and do not care who mock, hit or silence, and 7 students say immediately repay those who mocked, hit, or silence. This shows...
that most of emotion regulation in students is low.

The purpose of this study was to determine the relationship of the gender with emotion regulation in junior high school students.

The results of this study are expected to provide information on the development of knowledge about gender and emotion regulation.

Method

The study design used is descriptive correlation with cross sectional approach. In a cross-sectional study, the variable causes or risk and effect or the case happens to the object of research is measured and collected simultaneously, for a moment or just once in one time (the same time), and there was no follow-up (Setiadi, 2013).

The population in this study were all students of class VII, and VIII in junior high school PGRI Pekanbaru. Number of class VII, and VIII in junior high school PGRI Pekanbaru is 280 students.

The samples in this study were adolescents aged 12-15 years and attending school in junior high school PGRI Pekanbaru as many as 165 respondents. Instruments in this study is a questionnaire gender and emotion regulation have tested the validity.

Data collection was conducted in the field of junior high school PGRI Pekanbaru simultaneously. The sampling technique used in this study is proportionate stratified random sampling. This technique is used when the population have a member or element that is not homogeneous and stratified proportional (Sujarweni, 2014), while the waysampling every class is done by incidental capture technique sampling. Incidental sampling is a sampling technique based on accidental / incidental, that anyone who accidentally met with investigators can be used as a sample, when seen people who happened to be found suitable as a data source. (Setiadi, 2013), harvesting incidental sampling because the study was conducted during the class meeting where many students who did not attend so that researchers can not use numbers merandom absent.

Analysis of the data in this study were univariate and bivariate. Univariate analysis was conducted to see the frequency distribution of age, gender, and emotion regulation in junior high school PGRI respondents in Pekanbaru. Bivariate analysis using chi-square test to see whether there is a relationship between independent variables (sex) with the dependent variable (emotion regulation).

Result

Based on research obtained the following results:

A. Univariate analysis

1. Characteristics of Respondents by Age

<table>
<thead>
<tr>
<th>No.</th>
<th>Age</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12 years old</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>13 years old</td>
<td>36</td>
<td>21.8</td>
</tr>
<tr>
<td>3</td>
<td>14 years old</td>
<td>75</td>
<td>45.5</td>
</tr>
<tr>
<td>4</td>
<td>15 years old</td>
<td>49</td>
<td>29.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>165</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 1 above shows that of the 165 respondents in junior high school PGRI Pekanbaru, the distribution of the majority of respondents according to age ie 14 years of age who were 75 respondents (45.5%).

2. Characteristics of Respondents by Gender

<table>
<thead>
<tr>
<th>No.</th>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Female</td>
<td>83</td>
<td>50.6</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>82</td>
<td>49.4</td>
</tr>
</tbody>
</table>

Distribution of Respondents by Gender
Based on Table 2 above shows that of the 165 respondents in junior high school PGRI Pekanbaru, the distribution of respondents by gender the vast majority were women with a number of 91 respondents (55.2%).

### Emotion Regulation

**Table 3**

<table>
<thead>
<tr>
<th>No</th>
<th>The level of emotion regulation</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>83</td>
<td>50.3</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>82</td>
<td>49.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>165</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 3 above shows that out of 165 respondents at junior high school PGRI Pekanbaru, the distribution of respondents by most emotion regulation is the respondents who have a high emotion regulation with the number of 83 respondents (50.3%).

### Bivariate analysis

Bivariate analysis in this study to determine the relationship between the variables of gender and emotion regulation. Explanation of Chi Square test results gender relations with emotion regulation can be seen in the following table:

**Table 5**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Emotion regulation</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Male</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>51.4</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>49.5</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

The results of the analysis of the relationship between gender and emotion regulation found that of 165 respondents were male sex there are 38 respondents (51.4%) had high emotion regulation and 36 respondents (48.6%) had a low emotion regulation. While 91 respondents were female with 45 respondents (49.5%) had high emotion regulation and 46 respondents (50.5%) had a low emotion regulation. Statistical analysis showed that the P value = 0.931 > α = 0.05. This means that Ho failed rejected so that it can be concluded that there is no significant relationship between gender and emotion regulation in junior high school PGRI students in Pekanbaru.

### Discussion

**A. Univariate analysis**

1. **Age**

Distribution of research results based on the age of the majority of respondents was 14 years of age by the number of 75 respondents (45.5%). This is because characteristics junior high school age are at the stage of early adolescence is the age of 12-15 years (Jahja, 2011). Jahja (2011) also states the characteristics of early adolescence is an increase in emotional occur quickly so that it can lead to conflict. Emotional enhancement is the result of physical changes, especially hormones that occurs in adolescence. In terms of social conditions, increased this emotion is a sign that teens are in new condition that is different from the previous period.

2. **Gender**

The results showed that the distribution by gender that most are female with a number of 91 respondents (55.2%).

Salovey and Sluyter (in Nisfiannor & Kartika, 2004) says that girls are more looking for support and protection from others to regulate their negative emotions,
while boys use physical exercise to regulate their negative emotions.

Distribution of respondents by gender in this study is the majority of respondents with female, because of 280 the total number of class VII and VIII in junior high school PGRI Pekanbaru is as much as 149 students are female and the rest male gender. So because the majority of female students more, took part in the sampling process to be the respondent in the study.

3. Emotion regulation

Based on the research results, obtained a distribution based on the most emotion regulation is the respondents who have a high emotion regulation with the number of 83 respondents (50.3%). Emotion regulation is the ability to realize and understand, manage and balance the emotions in themselves and change emotions so that they can motivate themselves from difficult circumstances (Silan & Goddess, 2015).

The results of this study indicate that there are subtle differences between respondents with high emotion regulation (83 respondents) and respondents who have low emotion regulation (82 respondents). Although the characteristics of the adolescent is emotionally unstable, but there are other factors that influence adolescent emotion regulation such as the relationship between parents and children, environmental factors, and factors of adolescent emotional experience.

B. Bivariate analysis

Based on the results of this study revealed that there was no correlation between gender with emotion regulation, the results of statistical tests are visible only subtle differences between respondents of men and women who have high and low emotion regulation.

Factor emotion regulation is not just gender but there are still other factors, such as the relationship between parents and children, environmental factors, and factors of adolescent emotional experience.

Conclusion

After doing research on the relationship of the gender with emotion regulation, the results show that the distribution of respondents according to age at 14 years with the highest number of 75 respondents (45.5), the highest gender is female with a number of 91 respondents (55.2), and most emotion regulation is the respondents who have High emotion regulation with the number of 83 respondents (50.3%).

In bivariate analysis using chi-square analysis was obtained P value = 0.931 > α = 0.05. This means that Ho failed rejected so that it can be concluded that there is no significant relationship between gender with emotion regulation in junior high school PGRI students in Pekanbaru.

Acknowledgement

For nursing particularly in the field of nursing soul, this study can be used as information about gender and emotion regulation. The results of this study can be used as a source of information for all parties related to the relationship of gender education with emotion regulation in junior high school students. The results of this study are expected to become information and knowledge for people, especially teens about gender relations with emotion regulation.

For other researchers will continue, the results of this study can be used as a baseline in carrying out related research further. Further research should examine the other factors associated with emotion regulation.

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THE EFFECT OF COMBINATION SPIRITUAL EMOTIONAL FREEDOM TECHNIQUE (SEFT) THERAPY AND HYDROTHERAPY WITH A MIXTURE RED GINGER ON BLOOD PRESSURE OF PATIENTS HYPERTENSION

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Abstract

High blood pressure (hypertension) can quietly damage the body for years before symptoms develop. Roughly half the people with untreated hypertension die because of heart disease related to poor blood flow. Therefore, non-pharmacological treatment is a great way to recirculate blood and warmth. With combination of SEFT therapy and hydrotherapy, this research was aimed to explore the effect of SEFT and hydrotherapy with a mixture of red ginger to reduce high blood pressure in patients at Puskesmas Payung Sekaki. Quasi Experimental were used in this study using non-equivalent control group approach. Samples were 36 respondents (divided equally into 2 groups) recruited using purposive sampling technique. The intervention group received SEFT intervention combined hydrotherapy for 20 minutes per day in 6 consecutive days, while the control group was not given any treatment. The analysis used was univariate analysis to see frequency and bivariate analysis with dependent t test and independent t test. The result of statistical test showed that there was significant difference of blood pressure before and after intervention with p value 0.000 (<0.05). The results showed that the combination of SEFT therapy and hydrotherapy with a mixture of red ginger can lower blood pressure patients with hypertension. The results recommend SEFT and hydrotherapy as an adjunctive therapy to decrease blood pressure.

Keywords: Blood pressure, hydrotherapy, hypertension, SEFT

Introduction

Hypertension is a state of blood pressure at> 120/80 mmHg. The mechanism of increasing blood pressure is by changing blood pressure (Muttaqin, 2009). Blood pressure is defined as the impulse on the artery wall resulting from the pump from the heart (Potter & Perry, 2010). In 2015, World Health Organization (WHO) showed ≥ 1 in 5 adult patients had hypertension, and this condition could result in half of all deaths from cardiovascular disease (WHO, 2015).

The prevalence of hypertension in the United States in 2014 was 18% with hypertension (WHO, 2015). The prevalence of hypertension is ≥18 years in Indonesia, which is 25.8% (Riskesdas, 2013). Based on data from the Pekanbaru City Health Office in 2017 shows that primary hypertension is the most common case of disease which ranks second in the ten highest cases of disease. Primary hypertension in 2017 was 35,090 cases (Pekanbaru City Health Office, 2017).

Hypertension is associated with thickening of the arterial wall so that its elasticity is reduced and causes increased peripheral resistance of the arterial wall. The heart will pump by facing great resistance, consequently the blood supply to various vital organs such as the heart, brain and kidneys decreases (Potter &
Hypertension is also called "the silent killer", due to decreased blood supply to various organs, causing damage to even death silently without pain (Kowalski, 2010).

Hypertension is caused by several factors including heredity, age, excessive salt consumption, obesity, smoking, caffeine, alcohol, and stress (Pahmawati, 2011). If hypertension is not treated immediately, it can cause death from cardiovascular disease (Potter & Perry, 2010).

There are many methods for managing hypertension, including pharmacological and non-pharmacological therapies. Pharmacological management using antihypertensive drugs (Muttaqin, 2009). However, the blood pressure of hypertensive patients is still not controlled despite pharmacological therapy. This is related to side effects and inappropriate drug combinations (Sudoyo et al., 2010). Non-pharmacological therapy is needed to minimize the side effects of pharmacological therapy. Some non pharmacological approaches in dealing with hypertension are weight reduction, limiting alcohol, exercise, and relaxation (Muttaqin, 2009).

Relaxation is a technique of combining repetitive mental focus with a calm and friendly attitude. The goal of relaxation therapy is that individuals monitor and release the tension experienced in various parts of the body. Characteristics of relaxation respondents are a decrease in the work of the heart and respiratory frequency, blood pressure, and oxygen use as well as an increase in brain work and peripheral skin temperature (Potter & Perry, 2010). Relaxation therapy in overcoming hypertension recently developed is Spiritual Emotional Freedom Technique (SEFT).

SEFT is an adaptation technique from Emotional Freedom Technique (EFT) by Gary Craig (USA), and then EFT was developed by Zainuddin in 2005 to be SEFT by emphasizing aspects of spirituality (Zainuddin, 2009). SEFT therapy is a combination of spiritual therapy and the body's energy system (energy medicine) with the tapping method on the body's meridian points. The benefit of SEFT therapy is that it can overcome physical and emotional problems (Rajin, 2012). When someone prayed with a sincere heart and surrender, relaxation of the body will occur so that a person becomes calm, breathing becomes regular, heart rate becomes regular and stable will accelerate blood circulation so that the body relaxes (Zainuddin, 2009).

One way to treat high blood pressure is hydrotherapy. If hydrotherapy is done regularly, it can overcome high blood pressure. The impact felt by the body from warm water therapy is that it can facilitate and stabilize blood flow (Lalage, 2015). Soaking warm water has the benefit of dilating vascular so that blood pressure is reduced (Ilkafah, 2016). Foot baths using warm water can be combined with other herbal plants, one of which is ginger. The benefits of ginger are through the vasodilation mechanism so that blood circulation is smooth and prevents cardiovascular disease and stroke (Akbar, 2015).

Based on a preliminary study on March 15, 2018 in the Payung Sekaki Community Health Center area through an interview method, eight people who had hypertension did not know about SEFT therapy and soaking the feet of warm water with a red ginger mixture can reduce blood pressure. Meanwhile, five out of eight said they only consumed antihypertensive drugs and three others used non-pharmacological therapies such as starfruit stew, massage the head of the neck, praying and dhikr. The result is blood pressure drops when consumed and carried out regularly.

**Method**

This research was conducted at the Payung Sekaki Pekanbaru Health Center.
which started from February to July 2018. The study used a quasi experiment design with non equivalent control group design. This design is where the sample is first observed before being given intervention, then after the intervention is given a sample again it is observed (Hidayat, 2012). The experimental group carried out blood pressure measurements before being given intervention and after being given intervention. Meanwhile, the control group still measured blood pressure before and after without intervention (Setiadi, 2013).

Data collection tools used in this study are aneroid tensimeters, stethoscopes, and observation sheets.

Data analysis used is univariate analysis and bivariate analysis. Bivariate analysis was used to determine whether there was a significant effect between the two variables using the Wilcoxon and Mann Whitney alternative tests.

Result

1. Univariate Analysis

Table 1 Distribution of Respondent Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experiment and Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong>:</td>
<td></td>
</tr>
<tr>
<td>Late Adult (36-45)</td>
<td>5</td>
</tr>
<tr>
<td>Early Elderly (46-55)</td>
<td>17</td>
</tr>
<tr>
<td>Late Elderly (56-65)</td>
<td>14</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
</tr>
<tr>
<td><strong>Education</strong>:</td>
<td></td>
</tr>
<tr>
<td>Primary School</td>
<td>19</td>
</tr>
<tr>
<td>Junior High School</td>
<td>4</td>
</tr>
<tr>
<td>Senior High School</td>
<td>11</td>
</tr>
<tr>
<td>College</td>
<td>2</td>
</tr>
<tr>
<td><strong>Work</strong>:</td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>8</td>
</tr>
<tr>
<td>Not Work</td>
<td>28</td>
</tr>
<tr>
<td><strong>Long Suffering</strong>:</td>
<td></td>
</tr>
<tr>
<td>Hypertension:</td>
<td></td>
</tr>
<tr>
<td>≤ 5 Year</td>
<td>21</td>
</tr>
<tr>
<td>&gt; 5 Year</td>
<td>15</td>
</tr>
</tbody>
</table>

Table 2 Average Systolic and Diastolic Blood Pressure Before and After Intervention in Experimental Groups and Control Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experiment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre Systolic</td>
<td>18</td>
<td>158.03</td>
<td>11.63</td>
<td>142.30</td>
<td>181.00</td>
</tr>
<tr>
<td>Pre Diastolic</td>
<td>18</td>
<td>99.11</td>
<td>6.31</td>
<td>89.70</td>
<td>111.00</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre Systolic</td>
<td>18</td>
<td>163.02</td>
<td>14.69</td>
<td>143.70</td>
<td>196.00</td>
</tr>
<tr>
<td>Pre Diastolic</td>
<td>18</td>
<td>98.84</td>
<td>5.62</td>
<td>90.70</td>
<td>113.00</td>
</tr>
</tbody>
</table>

**Experiment**

Table 3 Difference in Average Systolic Blood Pressure Before and After Intervention in the Experimental Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sistolic</td>
<td>157.85</td>
<td>142.30</td>
<td>181.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Diastolic</td>
<td>99.11</td>
<td>6.31</td>
<td>15.10</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Table 4 Difference in Average Diastolic Blood Pressure Before and After Intervention in the Experimental Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>157.85</td>
<td>142.30</td>
<td>181.00</td>
</tr>
<tr>
<td>Post test</td>
<td>147.00</td>
<td>132.30</td>
<td>164.70</td>
</tr>
</tbody>
</table>

Table 5 Difference in Average Systolic and Diastolic Blood Pressure Before and After Intervention in the Control Group

<table>
<thead>
<tr>
<th>Blood Pressure</th>
<th>Mean</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sistolic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>163.02</td>
<td>14.69</td>
<td>0.000</td>
</tr>
<tr>
<td>Post test</td>
<td>161.20</td>
<td>15.11</td>
<td></td>
</tr>
<tr>
<td>Diastolic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>98.84</td>
<td>5.62</td>
<td>0.005</td>
</tr>
<tr>
<td>Post test</td>
<td>97.33</td>
<td>4.57</td>
<td></td>
</tr>
</tbody>
</table>

Discussion

A. Characteristics of Respondents

1. Age

The results of research found that most hypertensive patients were in the age range> 46 years as many as 47.2% (17 people). Blood pressure increases with age (Potter & Perry, 2010). In the elderly, increased blood pressure is caused by a
decrease in arterial elasticity (Kozier, Erb, Berman, & Snyder, 2010).

2. Gender

Respondents mostly female, as many as 77.8% (28 people). During premenopause, women begin to lose little by little the hormone estrogen which serves to protect blood vessels from damage. During premenopause, women begin to lose little by little the hormone estrogen which serves to protect blood vessels from damage. This process continues where the estrogen hormone changes its quantity according to the age of women naturally, which generally starts at the age of 45-55 years (Anggraini, Waren, Situmorang, Asputra, & Siahaan, 2009).

3. Education

Distribution based on education level showed that the majority of respondents' education was elementary school as much as 52.8% (19 people). According to Anggara and Prayitno (2013), the relationship between education and hypertension is not only due to the level of education, but because the level of education influences healthy lifestyles. The high risk of developing hypertension in low education is caused by a lack of knowledge in patients with low education on health and is slow to receive information provided by health workers so that it has an impact on behavior or a healthy lifestyle.

4. Work

Based on the employment status most respondents did not work as many as 77.8% (28 people). Work is related to physical activity. Inactive people tend to have a higher heart rate so that the heart muscle must work harder each contraction. The harder and often the heart muscle pumps, the greater the pressure imposed on the arteries (Kurniasih, 2013).

5. Long Suffering Hypertension

Based on the duration of hypertension are the majority of respondents experiencing hypertension ≤5 years as much as 58.3% (21 people). Supporting study is the results of Wibowo's research (2011) which states that 65% of respondents have a long time suffering from hypertension ≤5 years, this is influenced by respondents’ compliance in treating hypertension and often obtains information about counseling programs on hypertension, complications and diet, so that hypertensive patients are obedient and know the consequences of hypertension.

B. Effect of Combination of Emotional Freedom Technique Spiritual (SEFT) Therapy and Soak Warm Water Foot with Red Ginger Mixture on Experimental Group and Control Group

The results showed a p value of 0.000, meaning that the combination of SEFT therapy and warm water foot soak with red ginger mixture can reduce blood pressure. This is consistent with the statement of Zainuddin (2009) which states that the working principle of SEFT therapy is not different from acupuncture and acupressure which can affect health by stimulating 17 body meridian points. Body meridian points when repeatedly tapped will neutralize the pain, both physical and emotional. Another supportive study is Lane's (2009) study which states that stimulating meridian points can control cortisol, reduce pain, slow heart rate, reduce anxiety, control the autonomic nervous system so as to create a sense of calm and relaxation. These conditions will affect the work of the heart by reducing cardiac output which results in a decrease in blood pressure. SEFT therapy combined with a warm foot soak with red ginger mixture can reduce blood pressure. This is because the warm water work system is basically increasing cell activity by energy flowing method through convection (flowing through a liquid medium) so that blood vessel dilation occurs to accelerate blood circulation throughout the body which results in a decrease in blood pressure.
Warm water mixed with red ginger because of the warm taste of red ginger can suppress the release of adrenal hormones, widen blood vessels so as to accelerate and facilitate blood flow and relieve the work of the heart, prevent blood clots because of the content of gingerol which can reduce cholesterol levels by preventing blood vessel blockage.

**Conclusion**

The results of this study indicate that the characteristics of respondents based on age obtained the highest age, namely 46-55 years, and the sex of the most respondents, namely women with education status, mostly elementary school, and based on the majority employment status does not work.

The results of this study indicate that there is a significant decrease in blood pressure in the experimental group with p value 0.000 (p <α). Measurements were obtained from the average value of systolic blood pressure before the intervention of 158.03 mmHg, the average diastolic blood pressure before the intervention was 99.11 mmHg, the average systolic blood pressure after intervention was 146.83 mmHg, and the average the average diastolic blood pressure after intervention was 93.37 mmHg. Thus it can be concluded that the combination of Spiritual Emotional Freedom Technique (SEFT) therapy and warm water foot soak with red ginger mixture has an effect on reducing blood pressure of hypertensive patients.

**Acknowledgement**

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3. Yufitriana Amir: Lecturer at the Department of Nursing at the Faculty of Nursing at the University of Riau, Indonesia

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THE CORRELATION BETWEEN PARENTING STYLES AND ONLINE GAMING ADDICTION IN JUNIOR HIGH SCHOOL STUDENTS

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Abstract

Introduction: Parenting styles influenced the adolescents behavior. Adolescents nowadays like to play online games. The aim of this research was to study the correlation between parenting styles and online gaming addiction in junior high school students. Method: This research used proportionate stratified random sampling involving 238 students selected based on inclusion criteria by using parenting style questionnaire for adolescents and game addiction scale. Parenting style questionnaire was developed by researcher with validity test. Game addiction scale divided into positive and negative online gaming addiction. Result: This research found that 66 students who were not addicted to online games (negative) obtained authoritative parenting style (74.2%), 33 students who were addicted to online games (positive) obtained permissive parenting style (55.9%). Conclusion: Data analysis was conducted by using chi-square test and the result showed p value (0.003) < alpha (0.05) which means that there was correlation between parenting styles and online gaming addiction. This research suggest providing authoritative parenting style in adolescents to prevent them from getting addicted to online games.

Keywords: Online gaming addiction, parenting styles, junior high school students

Introduction

The number of internet users in Indonesia is based on the results of the Survey Asosiasi Penyelenggara Jasa Internet Indonesia (APJII) in 2017 continues to experience tremendous growth in internet users so that the total number of Indonesian internet users reaches 143.26 million users. This result high compared to the results of the survey by APJII 2016 which showed the number of Indonesian internet users amounting to 137.2 million users. The figure of 143.26 million users means that it exceeds 50% of the total population or population of Indonesia, precisely at 54.68%. Comparison of internet users based on sex, men (51.43%) and women (48.57%). The percentage of internet users aged 13-18 years ranges from 75.50% and one type of internet access service that is widely used is through search engines as much as 74.84%. In addition to the types of internet access services, surveys are also conducted in several aspects, one of which is lifestyle. Aspects in lifestyle that get many portions, one of which is online gaming. The survey conducted by APJII (2017) obtained users online game 54.13% in Indonesia.

Online games are one of the games that are in demand by various groups and are a means of entertainment and activities that can fill leisure time. Online games are games based electronics and visual (Rini, 2011). Online games are available for consumption by gamers from various age groups and genders. Children and adolescents tend to be more interested in games when compared to other age groups (Kuss & Griffiths, 2012). Teenagers generally prefer to play online games
because games have advantages over types of other games, namely players can not only play with people who are next to them but also can play with several players in other locations, even players in other hemispheres so that they increase the possibility of children being addicted (Young, 2009).

Teenagers are the stages of development from childhood to adulthood, namely between the ages of 13-20 years (Potter & Perry, 2010). Characteristics of adolescent are competitive games and daydream contest one of which is online games (Hockenberry & Wilson, 2014). Teenagers generally prefer to play online games because games have advantages over types of other games, namely players can not only play with people who are next to them but also can play with several other players in other locations, even players in other hemispheres so that they increase the possibility of children being addicted (Young, 2009).

In Indonesia, addicted to online game occurs especially in male adolescents. Some cases reported that teenagers had to steal because they ran out of money due to playing online games over a period of time (Sipahutar, 2013). Junior and senior high school student is rushed to the psychiatric hospital of RSUD Dr. Koesnadi Bondowoso due to an addiction to devices and online games, the child will bang his head against the wall if not allowed to play (Astro, 2018).

Addicted to online games has criteria including players thinking about playing games all day, spending time playing games, forgetting other activities. People who were addicted, tend to play games again after a long period of playing, players feel bad when they can not play games, players fight with other people because players play games excessively, and players ignore other important activities that ultimately cause problems to be counted for at least 6 months playing games (Lemmens, Velkenberg & Peter, 2009). When viewed on the duration aspects of playing online games, play online games for 2-10 hours per week used by online game addicts (Kusumadewi, 2009).

The Diagnostic and Statistical Manual of Mental Disorders (DSM 5th edition) part III of 2013 mentioned addiction problems in playing online games can cause a person to develop mental disorders, one of the potential additional diagnoses known as Internet gaming Disorder. Further research is needed regarding the determination of this diagnosis. In addition, the WHO has also included the problem of addiction to playing games as one of the disorders which is gaming disorder. Gaming disorder is defined in the 11th revised draft of International Classification of Diseases (ICD-11) as a game behavior pattern ("digital game" or "video game") characterized by disruption of control of the game, increasing priority given to playing games on for other activities insofar as the game takes precedence over other daily interests and activities, and continuation or escalation of games despite negative consequences (WHO, 2018).

Research conducted by Abedini, Zamani and Khaeradmand (2012) shows that there was a significant influence between parenting styles on addiction to playing computer games in adolescents. Based on the cases mentioned, dependence on playing online games can be classified as problematic behavior. Research suggests that the factors that can result in adolescents experiencing addiction to online games, namely adolescents with parents who are divorced, lonely, and lacking parental control (Xiuqin et al, 2010).

The research conducted by Nurmalisa (2015) in Pekanbaru related to the relationship of parental control over online gaming addiction found an
association between parental control and online gaming addiction in school-age children. Parental control of children is one dimension of parenting for children and adolescents. Factors seen indicate that teenagers who are addicted to playing online games indirectly get influence from their families, especially parenting. That is parenting gives an important role to the development of adolescents. Although adolescents tend to prefer to be with their peers, parents still need to provide control and acceptance to a certain degree towards adolescent behavior (Baumrind, 2012). Parenting affects teen identity. Parents who provide excessive protection will cause adolescents to lose their independence while parents who are too free will make teens grow into a generation that is wasteful and has no purpose in life (Surbakti, 2013).

The results of a preliminary study conducted at Muhammadiyah 1 Junior High School, of 30 class VIII students found 20 people playing online games with playing more than 2 hours per day. Two students mentioned that they used to play online games at internet cafe after school and could spend up to 5 hours there, students reasoned to play online games and not be banned by parents. The data obtained by students said that they like to play online games because games that have different levels and levels, students say playing online games is more exciting than playing video games ordinary, students can play with other people even other people who live in different parts of the world. The purpose of this study was to determine the relationship of parenting styles with online gaming addiction in junior high school students.

**Method**

This study conducted at Pekanbaru Muhammadiyah 1 Junior high school which began from February to July 2018. This study used a descriptive correlation research design, namely descriptive correlational research is a study to determine the relationship between variables with cross sectional approach. The population of this study were all Muhammadiyah 1 Junior high school students who played online games class VII and Class VIII (591 students). This research used proportional stratified random sampling techniques with inclusion criteria, namely students aged 11-18 years who play online games and are willing to become respondents.

The data collection tools used in this study were parenting questionnaires and game addiction scale for adolescents to find out the relationship between parenting styles and online gaming addiction in junior high school students.

Data analysis using univariate and bivariate analysis. Univariate analysis describes the characteristics of respondents related to age, sex and duration of play, characteristics of parenting styles, characteristics online gaming addiction and dimensions of online gaming addiction. Bivariate analysis was used to determine whether there was a significant relationship between parenting styles and addictions online game in junior high school students using chi-square test.

**Result**

1. **Univariate Analysis**

Description of respondent characteristics based on age, gender, duration of playing online games can be seen in table 6 below:

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent characteristics</td>
</tr>
<tr>
<td>Age</td>
</tr>
</tbody>
</table>


Early Adolescent 106 44.5
Middle adolescents 130 54.6
Late adolescents 2 0.8
Total 238 100

Gender Frequency (n) Percentage (%)
male 121 50.8
Female 117 49.2
Total 238 100

Length of play Frequency (n) Percentage (%)
1-3 hours / day 129 54.2
4-6 hours / day 91 38.2
7-9 hours / day 14 5.9
> 9 hours / day 4 1.7
Total 238 100

Table 1 showed the characteristics of respondents that the majority of respondents were in the middle adolescents of 14-16 years 130 (50.8%) students with the majority of respondents being male 121 (50.2%) students, the most frequent length of playing of students was in the range 1-3 hours.

Parenting styles were obtained by adolescents in this study:

Table 2
Distribution of respondents based on type of Parenting styles

<table>
<thead>
<tr>
<th>Type of Parenting styles</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritative</td>
<td>89</td>
<td>37.4</td>
</tr>
<tr>
<td>Permissive</td>
<td>59</td>
<td>24.8</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>48</td>
<td>20.2</td>
</tr>
<tr>
<td>Uninvolved</td>
<td>42</td>
<td>17.6</td>
</tr>
<tr>
<td>Total</td>
<td>238</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 showed the type of parenting most widely received by adolescents is authoritative, which was 89 (37.4%), and the least was uninvolved 42 (17.6%).

The results of the study on the characteristics online gaming addiction in junior high school students are as follows: Table 3

Table 3 showed that students who were addicted to online games (positive) about 97 (40.8%) people and students who were not addicted to online games (negative) about 141 (59.2%) people.

Table 4
Distribution of Respondents Based on Dimensions of Online Game Addiction

Table 4 showed the most positive dimension was mood modification 139 (58.4%). The dimension was the least on the dimension conflict about 150 (63%) students.

2. Bivariate analysis

Bivariate analysis in this study to determined the relationship between parenting styles and online gaming addiction on junior high school students

Table 5
Relations Parenting styles With Online Game Addiction In junior high school students.

Based on table 4 showed the most positive dimension was mood modification 139 (58.4%). The dimension was the least on the dimension conflict about 150 (63%) students.
Table 5 illustrated the relationship of parenting styles with online gaming addiction in junior high school students. Respondents with authoritative parenting who were not addicted to online games were 66 (74.2%) while 23 (25.8%) students were positively addicted to online games. Permissive parenting has the highest percentage of positive students addicted to online games namely 33 (55.9%). The statistical test results obtained p value is 0.003 with alpha 0.05, so that p value < alpha, then Ho is rejected and it can be concluded that there is a significant relationship between parenting styles and addictions to online games on junior high school students.

Discussion

1. Characteristics of Respondents
   a. Age
   The results showed number of age of the majority of respondents were in middle adolescence as many as 130 (54.6%) students. Entertainment Software Association (2015) states that the number of users game highest is at the age of 18 and under (27%) of users. Teenagers with video games aged 13-14 years were 74% and 15-17 years old were 70%. Teenagers play games with known friends as much as 89%, play with friends known online 54% and play with people who are not known online as much as 52% (Lenhart, 2015).

   Some studies support the results of this study, namely Rehbein, Kliem, Baier, Mößle and Petry (2015) research conducted on junior high school students in Germany, found that 1.16% of students experience Internet Gaming Disorder (IGD) or are addicted to online games. Teenagers tend to be more interested in games when compared to other age groups, therefore their risk for being addicted to playing games is also greater (Kuss & Griffiths, 2012). Researchers based on this conclusion that children in adolescence tend to play more often online games than other ages.

   b. Gender
   Research that has been carried out obtained data on male respondents totaling 121 (50.8%) more than female respondents 117 (49.2%). This is supported by Jin's statement (2015), boys tended to prefer playing online games to relieve stress and forget about real-world problems while women prefer to use social media. This research is supported by research conducted by Ulfa (2016) which shows that men tend to play more often online games to make it as a hobby while women play online games to eliminate boredom. From the researcher's point of view, boys tend to prefer to play online games because they influence their presence in the play group, some boys choose to play online games when gathering with friends while girls tend to talk about fun things with peers.

   c. Length of play
   The results of the study found that playing the online games for the majority of respondents 1-3 hours were 129 (54.2%) respondents. Kusumadewi (2009) stated that online game addicts usually spend playing time for 2-10 hours/week which supports Nurmalisa's research (2015) that most school students play online games for 1-3 hours / day so that if judged from the length of the play, it can be said that most of the respondents are addicted to online games.

   The results of research conducted by researchers at Muhammadiyah 1 Junior high school get the results of all respondents who use online games 7-9 hours / day to more than 9 hours / day diagnosed positively addicted to online games. This is in accordance with the addiction criteria online game tolerance, which is difficult to stop playing online games and even increase time of playing (Lemmens, Velkenberg & Peter, 2009).
d. Parenting styles

The results of this study found that the type of parenting that was widely used was authoritative parenting 89 (37.4%). Parenting style Authoritative has a dimension of control and a high warmth. Related research that supports this research is research by Longkutoy, Sinolungan, and Opod (2015) with the title of the relationship between parenting style and self-confidence of junior high school students. The results obtained by the majority of students using authoritative namely 25 (50%) students from 50 respondents and produce data on students with authoritative parenting have high self-confidence that is 22 (66.8%). Researchers argue that authoritative parenting has a good impact on student behavior.

Another study that supports the results of this study is also a study conducted by Nurmalisa (2015) about the relationship between parental control and addictions to online games in school children, the results showed that parents with high control had children with low addicted. Baumrind (2010) states that parental control is one dimension of parenting. The impact of authoritative parenting is respecting the opinions of others, respecting differences of opinion, building and fostering dialogue, and avoiding self-determination (Surbakti, 2009).

The researcher based on this opinion argues that authoritative parenting shown by the attitude of parents who are open, discussing rules with children, giving punishment if the child is wrong and giving praise if the child does the right thing. Parents with authoritative parenting are able to divide their childrens time in playing online games so that the child did not forget other important activities such as school, hanging out with family. In contrast to permissive parenting, parents tend to show high warmth in children and low control so that children become spoiled, uneducated, have free time with friends but lack of family untill spend time playing online games.

e. Criteria Online gaming addiction

The results showed that who were positive (addicted to online games) were 33 (55%) students. Efendi (2012) in his study mentions the negative impact of addicted to online games, namely children rarely gather with parents, skipping school due to playing online games in internet cafe, and physically can cause nerve and eye disorders. Diagnostic Statistical of Mental Disorder (DSM 5) (2013) states that adolescents who are addicted to online games can develop into Internet Gaming Disorder with addiction criteria online game that appear real and need to be taken seriously. WHO (2018) added addicted to games as a health problem called gaming disorder, Gaming disorder addiction to discuss related games in general either game online or offline. The researcher based on this opinion argues that although the number of students who are positively addicted to online games does not exceed the number of students who are not addicted to online games, this should be considered by parents. The impact caused by online gaming addiction affects both physical and psychological students.

f. Dimensions of addicted to online game

The results showed that the distribution of respondents based on the dimension of online gaming addiction of positive which is fulfilling was mostly in the mood modification dimension of 140 (58.8%) respondents. Related research that supports is research conducted by Yuniza (2017) with the results of the dimensions addiction of online game mood modification is in the criteria addiction of online game that dominates. Efendi (2012) mentions playing online games is basically to eliminate stress and saturation from the real world.
Soehartono (2016) mentions that adolescents initially only tried to play online games, this was because teenagers felt pressure in real life so that when teens started playing online games, teens drifted away and enjoyed online gaming until they became addicted. Mood modification is a condition where someone plays online games to forget other activities. This process is called a pleasant state and calms the mind so that it is released from real life (Lemmens, Valkenberg & Peter, 2009). Negative dimension data (not fulfilling the dimensional criteria) obtained by the majority were in the dimension conflict as many as 150 (63%) respondents. The dimensions of conflict are dimensions addiction of online game that lead to interpersonal conflicts that occur due to playing online games (Lemmens, Valkenberg, & Peter, 2009).

According to researchers, students are more negative (not fulfilling the addiction criteria) on the dimension conflict because students may not experience conflict due to online games but may be due to other things such as cases bullying in schools that cause conflicts between students, parents angry because students are slow to go home because of playing football, or students who are absent because they do not do school work due to watching the night ball.

**g. Relationship between parenting style and online game addiction in junior high school students**

Bivariate analysis was conducted to see the relationship between the independent variables is parenting style and dependent variables is online gaming addiction in junior high school students. Data that has been processed using the program Statistical Product and Service Solutions (SPSS) 20 using chi-square test found that the p value is 0.003 with alpha 0.05, so that p value < alpha, then Ho is rejected and it can be concluded that there is a relationship between parenting styles and online gaming addiction in junior high school students.

The results showed that students with permissive parenting had a high positive/addicted rate of online gaming addiction 33 students (55%) and authoritative parenting had (negative/not addicted) 62 students (69.7%). The results of this study are in accordance with the research conducted by Abedini, Zamani and Khaeradmand (2012) which shows significantly the influence of parenting towards addiction to playing computer games in adolescents in Iran. The study found that permissive parenting, authoritarian, and uninvolved had a significant relationship with positive online gaming addiction while authoritative parenting produced students with negative online gaming addiction.

The study was supported by the research of Adwitya and Suminar (2015) which showed that treatment of parents with non-directive parenting tended to have a higher level of dependence on playing online games and the authoritative pattern had a low dependency pattern. The non-directive pattern is a division of permissive parenting (Baumrind, 2010). Permissive parenting affected children can act as they wish, are not able to control themselves, low self-awareness levels that cause them to be more susceptible to be addicted to online games.

Efendi (2014) in his research related to factors that influence online gaming addiction to students is parenting errors from parents to children. Hockenberry and Wilson (2014) state that the problem that often occurs in adolescents, especially middle teens, is the problem of freedom and control of parents which results in a strong urge to be free from parents and join with peers. Parents in this case still need to provide control and acceptance to a certain degree towards adolescent behavior (Baumrind, 2012).

This study concluded that there was a significant relationship between
parenting styles and addictions to online games in junior high school students. This is caused by parenting influencing the behavior of adolescents, adolescents who are raised with authoritative parenting tend to have adaptive behavior and are able to schedule play and gatherings with family while permissive parenting causes children to be spoiled, not independent and dependent. Authoritarian parenting causes the child disobedient because rules are hard and unresponsive to the child. The right parenting style is that parents must balance the control and warmth given to adolescents like authoritative parenting.

Conclusion

This study was found that the majority of respondents were in middle adolescents and male respondent more than female and respondents played online games for 1-3 hours /day. Parenting styles that is widely used is authoritative.

The results of the study showed that authoritative parenting showed the highest number of non-addictions (negative) in respondents and permissive parenting showed the addictions to online games highest number of (positive) among respondents. Data analysis by chi-square obtained p value < α so that there was a relationship between parenting and online gaming addiction in junior high school students.

Suggestions
Nursing Science

The results of this study were expected to be an information material in developing nursing science regarding the relationship of parenting styles with online game addiction to junior high school students.

Community

The results of this study were expected to be a source of information for the community, especially parents, so they can understand the relationship between parenting styles and addictions online game so parents can choose authoritative parenting as the best choice in parenting children.

Educator Workers

The results of this study were expected to be a source of information for educators to monitor the type of play of students, especially online games in schools and evaluate school activities that can reduce addiction to playing online games for students.

Further Research

The results of this study were expected to be information for future researchers to examine other factors that might influence online gaming addiction in junior high school students.
Acknowledgement

We thank you for the assistance and guidance from various parties in completing this research report.

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RELATIONSHIP BETWEEN FAMILY SUPPORT AND AGGRESSIVE BEHAVIOR AMONG INDONESIAN ADOLESCENTS

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Abstract

Objective: Adolescence is a critical period in human development stage where aggressive behavior is common due to changes and challenges accompanying transition to adulthood. Social support from family members is considered as an appropriate promising solution to augment aggressive behavior among adolescents. Method: The study adopted descriptive-correlational research design using a sample consisting of one-hundred thirty-five (135) students of Tri Bhakti Junior High School in Pekanbaru. The data were collected using the adopted, valid and reliable Family's support and Aggression questionnaires. Results: The chi-square test showed significant relationship (p-value= 0.004; α= 0.05) between family support and aggressive behavior among adolescents. Conclusions: This research confirms the beneficial effects of family support in aggression among adolescents.

Keywords: Adolescent, aggressive behaviour, family support

Introduction

Adolescence is a very critical period in human development stage. At the time of this age often appeared conflict. Conflicts are not resolved properly by the teenagers will have negative impacts in adolescent development, one of the impact is psychosocial problems (Retnowati, 2008).

Psychosocial problems are problems that make changes in the lives of both psychological and social that can be the beginning of psychiatric problems or mental health issues that have an impact on the social environment (Keliat, 2010). Psychosocial problems is a problem in adolescents are common in Indonesia, one of the problem is aggressive behavior.

Aggressive behavior is a reaction of emotion in individuals that is displayed in the destruction of human or objects that is expressed in words (verbal) and behavioral (non-verbal) (Silwan, 2012). The number of aggressive behavior in adolescents increasing every year, we can see it from television and newspaper (Setiawati, 2015).

Family environment is the first environment faced by teenagers both socially and individually. According to Lestari (2016) suggested a positive and significant relationship adolescent with family always provide social support and always harmonious.

The purpose of this study was to determine the relationship of social support of families with adolescent aggressive behavior. The results of this study are expected to add insight and knowledge, especially on social support of family and adolescent aggressive behavior.

Method

This research was took place in SMP Tri Bhakti Pekanbaru that starting from February to July 2018. This study used a descriptive correlation design with cross sectional approach.

The population in this study were students of class VII and VIII SMP Tri Bhakti Pekanbaru, the populations is 204
students. The sample were 98 students from VII class and 106 students from VIII class. The sample in this study was 135 students based on inclusion criteria. Samples were taken by stratified random sampling.

The data were collected using the adopted, valid and reliable Family's support and Aggression questionnaires. Data were analyzed using univariate and bivariate analysis. Univariate analysis describes the characteristics of respondents related to gender, age, religion, ethnicity, education level of parents, the work of parents, and the parents income. Bivariate analysis is used to determine whether there is a significant relationship between the two variables using chi-square test.

Result
1. Univariate Analysis

Table 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Social Support Family</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Positive</td>
<td>70</td>
<td>51.9</td>
</tr>
<tr>
<td>2.</td>
<td>Negative</td>
<td>65</td>
<td>48.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>135</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that the highest respondents who have received family support in positive category were 70 people (51.9%).

Table 2

<table>
<thead>
<tr>
<th>No.</th>
<th>Aggressive behavior</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>High</td>
<td>71</td>
<td>52.6</td>
</tr>
<tr>
<td>2.</td>
<td>Low</td>
<td>64</td>
<td>47.4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>135</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that the highest respondents who have aggressive behavior in high category were 71 (52.6%).

2. Bivariate Analysis

Table 3

<table>
<thead>
<tr>
<th>No.</th>
<th>Social Support Family</th>
<th>Aggressive behavior</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Positive</td>
<td>High N=28 Low N=42</td>
<td>0.004</td>
</tr>
<tr>
<td>2.</td>
<td>Negative</td>
<td>High N=43 Low N=22</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>High N=71 Low N=64</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the results of 70 respondents who have received family support positively, 28 respondents have high aggressive behavior and 42 respondents have a low aggressive behavior. The results of the 65 respondents who have received negative family support, 43 respondents have high aggressive behavior and 22 respondents have a low aggressive behavior. The results of chi-square statistical test showed that the P value = 0.004 <α = (0.05) it can be concluded there is a significant relationship between family support and aggressive behavior in adolescent.

Discussion

Characteristics of Social Support Family

The results of the study on 135 students found that the highest respondents who have received family support in positive category were 70 people (51.9%). Family support that given to teenagers make them feel calm, considered, increase a sense of confidence and competence. Social support from families to the youth play an important role on the behavior of adolescents (Santrock, 2007). The same thing was stated by Hafid and Muhid (2014) that teenagers who receive social support from family in a positive way will have more
positive thoughts in the difficult situation. Positive thoughts can decrease the risk of aggressive behavior in adolescents.

**b. Characteristics of Aggressive Behavior in Adolescents**

The results of the study shows that the highest respondents who have aggressive behavior in high category were 71 (52.6%). The strongest influence on shaping the behavior of adolescents is the family environment. Aggressive behavior is also formed from peer environment, the local community, mass media, cultural influences, and society at large (society). All of these systems interact in various ways and complex and it makes a person leads to a certain activity or behavior (Susantyo, 2016).

**c. Relationship Between Family Support And Aggressive Behavior in Adolescents**

Bivariate analysis was conducted to see the relationship between variables. Based on the data that has been processed using a computer statistics program using chi-square test was obtained p-value (0.004) <\( \alpha \) (0.05), then Ho is rejected and it can be concluded that there is a relationship of social support of families with adolescent aggressive behavior in SMP Tri Bhakti Pekanbaru. The results showed that out of 70 respondents received positive family social support, 28 respondents (40%) had high aggressive behavior and 42 respondents (60%) had a low aggressive behavior. The results of the 65 respondents received negative family social support, 43 respondents (66.2%) had high aggressive behavior and 22 respondents (33.8%) had a low aggressive behavior.

Research by Priasmoro, Widjajanto, and Supriati (2016) states that there is a significant correlation between increased social support of families with a decrease in aggressive behavior of teenagers. This study assumed because most teens do not get optimal social support from family so, adolescents are more easily influenced by mental health threat that can be manifested in the form of aggressive behavior. Aggressive behavior arising from stress and depression that occur spontaneously however, the process has lasted a long time. Adolescents who obtain high social support would have higher interpersonal skills so that it is easier to adapt to stress.

**Conclusion**

The results showed that more respondents receive social support positively family of 70 people (51.9%) and respondents more aggressive behavior high category, 71 (52.6%). Based on the test results of chi-square statistic indicates that the p value = 0.004 <\( \alpha \) = (0.05) it can be concluded that there is a significant relationship between social support of families with adolescent aggressive behavior.

**Acknowledgement**

Researchers express the highest gratitude for the guidance and assistance from various parties in the completion of this research.

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RELATIONSHIP BETWEEN STUDENTS' PERCEPTION OF PROBLEM BASED LEARNING AND LEARNING OUTCOMES

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Abstract

Objective: Problem based learning is a method of learning with student centered approach. Changing education system from teacher centered learning to student centered learning may cause different experiences for students and it creates different perception for students.

Method: This study applied a descriptive correlation using cross sectional approach with 175 respondents of nursing students. Data were collected using questionnaire of PBL that has been tested for validation and reliability.

Results: Students involved reported that students have good perceptions of PBL in nursing basic science (83.4%) and communication in nursing (80%). The result showed that there is a significant relationship between students' perception of PBL and learning outcomes of nursing basic science with p value (0.02) < α (0.05) and communication in nursing with p value (0.009) < α (0.05).

Conclusions: A statistically significant beneficial effect of PBL was found for students in terms of learning outcomes and new learning experiences.

Keywords: Learning outcomes, nursing student, nursing subject, problem based learning, school of nursing, students’ perception.

Introduction

Problem Based Learning (PBL) is a method of learning with student centered approach (Fathurrohman, 2016). PBL was first launched in the early 1970s at the McMaster University of Canada's Medical Faculty, as one of the solutions in diagnosis by making questions according to existing problems (Fathurrohman, 2016). After that, many universities in the world began to implement methods that suit their individual needs (Amir, 2010).

Over time, PBL began to be known at universities in Indonesia, including the University of Riau. PBL was firstly introduced at the Faculty of Nursing in 2011, and it runs until now.

Preliminary research was conducted using unstructured interviews of several nursing students of University of Riau received vary information. Some students said that PBL processes are sometimes tedious, because more time is needed in their implementation compared to teacher-centered learning methods. Students also said with PBL, the tutorial report assignment was quite a lot and needed the latest literature, and the lack of available literature facilities in the library. Some students also reported that with PBL they were motivated to learn and thinking critically.

Based on preliminary information, it was found that each individual has a different perception of objects that see it the same. Student perceptions can influence learning outcomes (Sutrino & Siswanto, 2016). Learning outcomes are values given to students within a certain period (Habsari, 2005). Learning outcomes in this study will be seen from two existing nursing subjects in the second semester, namely nursing basic science and communication in nursing.

The purpose of this study was to identify the relationship between students’ perception of problem based learning with learning outcomes in nursing subjects.

The results of this study are expected to provide information relating
to learning-based methods that can be seen from the values of nursing subjects and can be a learning material for PBL processes at the Faculty of Nursing Universitas Riau.

Method
This study used quantitative design with a cross sectional approach. The population in this study were all of students A 2017 using totaling sampling technique with total 175 respondents. Data collection instrument in this study was questionnaire. Data analysis used in this study was univariate and bivariate analysis.

Results
1. Univariate Analysis
   a. Describe of Learning Outcomes of Nursing Basic Science and Communication in Nursing

<table>
<thead>
<tr>
<th>No</th>
<th>Learning Outcomes of Nursing Basic Science</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enough</td>
<td>4</td>
<td>2.3%</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
<td>138</td>
<td>78.9%</td>
</tr>
<tr>
<td>3</td>
<td>Very Good</td>
<td>33</td>
<td>18.9%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>175</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1 shows the data that of the 175 respondents, it was found that the majority of respondents received good learning outcomes of nursing basic science as many as 138 people (78.9%).

<table>
<thead>
<tr>
<th>No</th>
<th>Learning Outcomes of Communication in nursing</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enough</td>
<td>2</td>
<td>1.1%</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
<td>128</td>
<td>73.1%</td>
</tr>
<tr>
<td>3</td>
<td>Very Good</td>
<td>45</td>
<td>25.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>175</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2 shows the data that out of 175 respondents, it was found that the majority of respondents get good learning outcomes in communication in nursing as many as 128 people (73.1%).

b. Describe of Student Perception of PBL

<table>
<thead>
<tr>
<th>No</th>
<th>Perception</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>146</td>
<td>83.4%</td>
</tr>
<tr>
<td>2</td>
<td>Bad</td>
<td>29</td>
<td>16.6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>175</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3 shows the data that of the 175 respondents studied, it was found that the majority of respondents had good perceptions in nursing basic science were 146 people (83.4%).

<table>
<thead>
<tr>
<th>No</th>
<th>Perception</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>140</td>
<td>80%</td>
</tr>
<tr>
<td>2</td>
<td>Bad</td>
<td>35</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>175</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4 shows the data that of the 175 respondents studied, it was found that the majority of respondents had good perceptions in communication in nursing were 140 people (80%).

2. Bivariate Analysis
The Relationship of Student Perception to Problem Based Learning with Two Learning Outcomes in Nursing Subject

<table>
<thead>
<tr>
<th>Perception</th>
<th>Learning Outcomes in Nursing Basic Science</th>
<th>Total</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>(78.1%)</td>
<td>114</td>
<td>0.02</td>
</tr>
<tr>
<td>Bad</td>
<td>(96.6%)</td>
<td>28</td>
<td>0.00</td>
</tr>
<tr>
<td>Good</td>
<td>(21.9%)</td>
<td>32</td>
<td>146</td>
</tr>
<tr>
<td>Bad</td>
<td>(3.4%)</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>Good</td>
<td>(100%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad</td>
<td>(100%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis of 175 respondents, it found that the majority of respondents get enough and good learning outcomes in nursing basic science with good perception there were 114 people (78.1%).

<table>
<thead>
<tr>
<th>Perception</th>
<th>Learning Outcomes of Communication in nursing</th>
<th>Total</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>(81.1%)</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Bad</td>
<td>(18.9%)</td>
<td>33</td>
<td>175</td>
</tr>
</tbody>
</table>

The results of the analysis of 175 respondents, it found that the majority of respondents got enough and good learning outcomes in nursing basic science with good perception there were 142 people (81.1%).
The results of the analysis of 175 respondents, it found that the majority of respondents got enough and good learning outcomes in communication in nursing with good perception there were 98 people (70%).

Discussion

1. Univariate Analysis

a. Describe of Learning Outcomes of Nursing Basic Science and Communication in Nursing

The results of the study illustrate the learning outcomes in two nursing subjects, the data obtained is that the majority of students get good learning outcomes, amounting to 138 people (78.9%) for learning outcomes of nursing basic science and 128 people (73.1%) for learning outcomes in communication in nursing. Study showed that 18 people (45.0%) of respondents get good learning outcomes in medical surgical nursing care courses on PBL learning methods (Musiana, 2013). Based on information, it can be concluded that the learning outcomes obtained in the two major nursing subjects are good learning outcomes. This is because one of the factors that influence learning outcomes is learning motivation (Daely & Manurung, 2013).

b. Describe of Student Perception of PBL

The results of the study describing student perceptions of PBL in two nursing subjects showed that the majority were good perceptions of 146 people (83.4%) for learning outcomes of nursing basic science and 140 people (80%) for communication in nursing. Study showed that 61 people (57.0%) respondents had a good perception of PBL (Manggarsari, 2012).

There are several factors that influence perception, namely needs, knowledge, perspectives, and past experiences. Students of A 2017 have the same experience and perspective on the learning process of PBL method that has been lived and observed for one semester, so that experience and point of view produce a good perception of PBL (Candra, Harini, & Sumirta, 2017).

2. Bivariate Analysis

The Relationship of Student Perception to Problem Based Learning with Two Learning Outcomes in Nursing Subject

The results of the analysis of the relationship of student perceptions of problem based learning with learning outcomes in nursing basic science using Chi-Square shows p value 0.02 < α (0.05). For the results of the analysis of the relationship between student perceptions of problem based learning in the communication in nursing by using Chi-Square shows p value 0.009 < α (0.05)

Based on the above, it can be seen that in both nursing subjects shows Ho is rejected and it can be concluded that there is a relationship between students' perceptions of problem based learning and learning outcomes in nursing basic science and communication in nursing. The results of this study are in accordance with the research showed found that there was an effect of the problem based learning model on increasing motivation and learning outcomes in basic human subjects (Puspita, 2010).

Study showed that perception can influence learning outcomes, where perception is how a person evaluates something he receives (Sutrisno & Siswanto, 2016). This study shows that the perceptions of students on PBL majority are good per ceptions and the learning outcomes in nursing basic science and communication in nursing
obtained by students are also good. This shows that the PBL method used in this learning is a good method which means that the learning method has an influence or there is a relationship with learning outcomes (Puspita, 2010).

Conclusion

The results of the study illustrate the learning outcomes in two nursing subjects, the data obtained is that the majority of respondents get good of learning outcomes, amounting to 138 people (78.9%) for learning outcomes in Nursing Basic Science and 128 people (73.1%) for communication in nursing.

The results of the study illustrating student perceptions of PBL in two nursing subjects, showed that the majority were good perceptions of 146 people (83.4%) for nursing basic science and 140 people (80%) for communication in nursing.

Statistical test results for the relationship of student perceptions of PBL with learning outcomes in Nursing Basic Science obtained p value (0.02) < α (0.05), and the results of statistical tests to relate student perceptions of PBL with learning outcomes in Communication in nursing obtained p value (0.009) < α (0.05). This can be stated that there is a significant relationship between student perceptions of PBL and learning outcomes in Nursing Basic Science and Communication in nursing.

Acknowledgements

Thank you infinitely for the help and guidance from various parties in the completion of this research report.

References


PROFILING DIABETES MELLITUS (DM) PATIENTS: DEMOGRAPHIC CHARACTERISTICS, DISEASE HISTORY AND FOOT GRADE

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Abstract

Objective: Diabetes mellitus is a chronic disease which is identified by hyperglycemia condition and may increase the risk of microvascular and macrovascular complications due to neuropathy. The purpose of this research was to identify and analyze the grade of diabetic foot ulcer based on Meggitt-Wagner system to among the diabetes mellitus patients who got diabetic foot ulcer. Method: Observational analytic approach with cross sectional design was employed. The subjects (N=37) were obtained through census sampling, and were observed at RSUD Arifin Achmad hospital dated july 2018. Result: The result showed majority of the respondents with diabetic foot ulcer are female (N=26; 70,3%), at the 56-65 years old bracket (N=17; 45,9%), and with a duration history of DM for less than 5 years (N=15; 40,5%). Conclusions: Majority of respondents in grade 1 with superficial wounds characteristic.

Keyword: Diabetic foot, diabetes mellitus, Meggitt Wagner grade.

Introduction

Diabetes mellitus (DM) is a chronic disease caused by the pancreas not producing enough insulin or the body cannot effectively use the insulin produced. Uncontrolled diabetes can cause serious damage to many body systems, especially nerves and blood vessels (World Health Organization, 2017).

The IDF estimates that 212 million people are unaware that they suffer from diabetes, 279 million people live in middle to upper income areas, and 327 million people with diabetes occur at the active age of work. Indonesia ranks fourth in the world with the most diabetes mellitus with the number of DM patients reaching (10,276.8 million people) after China (114,394.8 million people), India (72,946.4 million people) and the United States (30,187.5 million people) (IDF, 2018). In Pekanbaru the prevalence of DM was recorded at 13,981 in 2016 and increased to 19,093 in 2017 (Pekanbaru City Health Office, 2018).

Diabetic foot ulcers are found, but there is minimal identification in this case, so there is no clarity regarding the degree of ulcer experienced by the patient. The accuracy in identifying in obtaining ulcer degrees will be very helpful in the treatment of ulcers and prevention of ulcer severity in a higher degree and even amputation. Control of blood glucose levels, nutrition and care proper wounds and legs.

Identify and analyze diabetic foot ulcer based on the Meggitt-Wagner system classification. The results of this study are expected to be used as a source of knowledge for nurses and patients, especially related to diabetic foot ulcer in the treatment of wounds and diabetic foot ulcer feet to prevent further complications.

Method

The research is a Analytical observational research design and total
sampling research sampling. The research design used was a cross sectional design. This study was conducted on hospitalization in Arifin Achmad hospital. Arifin Achmad Hospital was chosen as the research location because it is a referral hospital from the provincial level. The research starts from the proposal submission to the research seminar, which is from February 2018 to July 2018. Researchers went through the ethical testing stage before this research can carried out in RSUD Arifin Achmad Riau Province.

**Result**

**Univariate analysis**

Univariate analysis in this study describes the frequency distribution and percentage of demographic data and researched variables from 37 respondents. Demographic data from respondents taken were age, gender, and duration of suffering from DM.

**Table 1**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26-35</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>36-45</td>
<td>5</td>
<td>13.5</td>
</tr>
<tr>
<td>46-55</td>
<td>14</td>
<td>37.8</td>
</tr>
<tr>
<td>56-65</td>
<td>17</td>
<td>45.9</td>
</tr>
<tr>
<td><strong>Gender:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>29.7</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>70.3</td>
</tr>
<tr>
<td><strong>Long suffering:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>5</td>
<td>13.5</td>
</tr>
<tr>
<td>&lt; 5 years</td>
<td>15</td>
<td>40.5</td>
</tr>
<tr>
<td>5-10 years</td>
<td>14</td>
<td>37.8</td>
</tr>
<tr>
<td>&gt; 10 years</td>
<td>3</td>
<td>8.1</td>
</tr>
<tr>
<td><strong>Grade of ulcer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 0</td>
<td>9</td>
<td>24.3</td>
</tr>
<tr>
<td>Grade 1</td>
<td>15</td>
<td>40.5</td>
</tr>
<tr>
<td>Grade 2</td>
<td>2</td>
<td>5.4</td>
</tr>
<tr>
<td>Grade 3</td>
<td>6</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Based on the results of the study, in table 1, it was obtained data that the majority of diabetic foot ulcer respondents were late 17 respondents (45.9%), female was 26 respondents (70.3%), had diabetes mellitus (DM) for less than five years. year 15 respondents (40.5%) and most experienced ulcers in the first degree 15 respondents.

**2. Identification and analysis**

Identification and analysis of the degree of diabetic foot ulcer according to Meggitt-Wagner.

**Table 2**

<table>
<thead>
<tr>
<th>Derajat Meggitt-Wagner</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 0</td>
<td>9</td>
<td>24.3</td>
</tr>
<tr>
<td>Grade 1</td>
<td>15</td>
<td>40.5</td>
</tr>
<tr>
<td>Grade 2</td>
<td>2</td>
<td>5.4</td>
</tr>
<tr>
<td>Grade 3</td>
<td>6</td>
<td>16.2</td>
</tr>
<tr>
<td>Grade 4</td>
<td>4</td>
<td>10.8</td>
</tr>
<tr>
<td>Grade 5</td>
<td>1</td>
<td>2.7</td>
</tr>
</tbody>
</table>

- Closed ulcer
- History of ulceration
- History of amputation
- Deformity

**Table 2**

<table>
<thead>
<tr>
<th>Derajat Meggitt-Wagner</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 0</td>
<td>9</td>
<td>24.3</td>
</tr>
<tr>
<td>Grade 1</td>
<td>15</td>
<td>40.5</td>
</tr>
<tr>
<td>Grade 2</td>
<td>2</td>
<td>5.4</td>
</tr>
<tr>
<td>Grade 3</td>
<td>6</td>
<td>16.2</td>
</tr>
<tr>
<td>Grade 4</td>
<td>4</td>
<td>10.8</td>
</tr>
<tr>
<td>Grade 5</td>
<td>1</td>
<td>2.7</td>
</tr>
</tbody>
</table>

- Superficial wounds
- Wounds to the structures in the skin including tendons, joint capsules and bones
- Deep tissue abscess

Grade 3

Grade 4

Grade 5
Based on the results of the study in table 3 shows that the degree of diabetic foot ulcer identified and analyzed based on the degree of Meggitt-Wagner of the 37 majority respondents experienced first degree diabetic foot ulcer with superficial limited injuries 15 respondents (40.5%).

**Discussion**

1. **Characteristics of respondents**
   a. **Age**
   Respondents aged 56-65 years old experience chronic changes in blood vessels so that they are susceptible to macrovascular complications dry and rough skin in the epidermis area which belongs to the superficial region. Macrovascular complications will cause neuropathy in the lower extremities, so the patient does not feel pain or pressure can cause injury. Injuries that occur are susceptible to infection if blood glucose is not controlled properly because high blood glucose levels can make germs grow and spread and inhibit the supply of nutrients to the blood in the wound area for wound healing (Smeltzer & Bare, 2015).
   b. **Gender**
   Decreased estrogen and progesterone and emotional hormones can cause obesity, thus increasing insulin resistance which is in line with the increase in blood sugar levels. This can cause women to be more susceptible to diabetic foot ulcers (Goodman and Fuller, 2011).
   c. **Long suffering from DM**
   Diagnosis of DM is late to be known because the number of respondents who are unaware of experiencing DM early because of the lack of knowledge and fear of the patient to have early detection to health services. They only visit health services after experiencing complications or injuries so that the diagnosis of DM is too late to be known (Smeltzer & Bare, 2015).

2. Identification and analysis of the degree of diabetic foot ulcer according to the characteristics of Meggitt-Wagner
   Based on the results of the study, the majority of the elderly aged for 17 respondents (45.9%), female for 26 respondents (70.3%), diabetes mellitus (DM) less than five years old for 15 respondents (40.5%) and degree of injury for grade 1 for 15 respondents (40.5%). The results of identification and analysis of the degree of ulcer characteristics according to Meggitt-Wagner most respondents experienced superficial in the grade 1 for 15 respondents (40.5%).

The majority of respondents experienced injuries that were superficial. It means that most of the respondents have been controlling blood sugar well, routinely checking and caring for their wounds, eating nutritious foods that are good for repairing wounds such as foods that contain high protein and applying the principle Type, Amount and Hour. The wound must be maintained and treated so that it does not get worse.

**Conclusion**

Based on the results of the study, the majority of the elderly aged for 17 respondents (45.9%), female for 26 respondents (70.3%), diabetes mellitus (DM) less than five years old for (40.5%) and degree of injury for grade 1 for 15 respondents (40.5%). The results of
identification and analysis for the grade of ulcer characteristics according to Meggitt-Wagner most respondents experienced superficial ulcers and were in the grade 1 for 15 respondents (40.5%).

**Acknowledgement**

Unlimited thanks for the lecturers and various parties in the completion of this research report.

**References**


CORRELATES BETWEEN INHALER TYPE AND USAGE ACCURACY AMONG INDONESIAN ASTHMA PATIENTS

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Abstract

Objective: Asthma medications are commonly administration through the nasal/nasopharyngeal route, which is typified into aerosol and powder forms. How to deliver drugs to people with asthma most often through inhalation. This type of inhalation is divided into two types, namely inhaled aerosol type and powder type. This study aims to determine the correlates between the types and usage accuracy of inhalers among asthma’s patients. Method: This study utilized descriptive-correlational with cross-sectional design. Purposive sampling was employed to generate 30 respondents. Questionnaires were developed and administered to the study subjects to evaluate the type of inhaler used. An observation sheet was also used to ascertain the accuracy of using inhalers. Data analysis included univariate analysis to analyze the frequency distribution and bivariate analysis to determine relationship between the 2 variables by using Chi-Square test. Results: indicate there is correlation between inhaler type with usage accuracy among indonesian asthma patients with p value (0,026) <α (0,05). Conclusions: This research expects every public health center to perform evaluation on the type of inhalers used and accuracy of the use of inhalers on asthma patients.

Keyword: Accuracy, Asthma, Inhaler

Introduction

Asthma is a chronic disease that is not contagious and recurrent attacks often occur (World Health Organization, 2017). The Global Initiative for Asthma (2017) states that asthma is a chronic respiratory disease that commonly attacks 1-18% of the population in various countries. Deaths due to asthma in 2015 amounted to 383,000 people and in 2017 the number of people with asthma reached around 235 million cases (WHO, 2017).

The third highest number of asthma morbidity out of the top ten non-communicable disease cases was 3,506 cases in health centers throughout Pekanbaru City in 2015 (Pekanbaru City Health Office, 2015). The number of asthmatics in 2017 increased to 3,681 cases.

Asthma sufferers with more than 50% cannot use the inhaler in the right way (Purnamasari, 2012). The use of improper inhalers can risk causing oropharyngeal candidiasis (thrush) and dysphonia (hoarseness). Errors in the use of inhalation devices cause the dose of the incoming drug to be inappropriate (National Asthma Council Australia, 2016). Air flow or O2 ventilation in asthmatic patients is impaired (Loscalzo, 2016). Disorders of O2 ventilation for long periods of time can increase total lung capacity (Saminan, 2016).

An inhaler that can be used by asthma sufferers aims to relieve and control recurrence. The most widely used types are metered dose inhalers (MDI) and Dry powder inhalers (PDI). The way to use the inhaler is different so that it
requires education for the future in its use so that it can improve the respiratory conditions of people with asthma and can be carried out an examination of pulmonary capacity.

The purpose of this study was to determine the correlation between inhaler type and usage accuracy among Indonesian asthma patients.

**Formulation Of The Problem**

Asthma is a chronic disease that can be prevented and controlled by using an inhaler to maintain normal lung capacity. Each type of inhaler have many techniques to do. The method of using an inhaler is often inaccurate and not maximal due to the improper use of several types of inhalers used. For this reason, researchers want to know how the correlation between inhaler type and usage accuracy among Indonesian asthma patients?

**Method**

This research used descriptive correlation with cross sectional design by measuring and observing only once at a time on each subject. This research was conducted in five health centers (Puskesmas), namely Rejosari Health Center, Harapan Raya Health Center, Senapelan Health Center, Simpang Tiga Health Center, and Payung Sekaki Health Center.

The population of this study were all asthmatics who used an inhaler that met the inclusion criteria: asthmatics who use inhalers at least twice a day in the last 1 week, asthmatics aged more than 6 years, and are willing to become respondents. Sampling using non-probability sampling or random sampling technique by purposive sampling. Respondents in this study amounted to 30 people.

Data collection tools used in this study were questionnaires, observation sheets by used check list method and mobile phones. Data analysis used univariate analysis and bivariate analysis. Univariate analysis described characteristics of respondents related demographics (gender, age, education, occupation, and duration of use of inhalers). Analysis Bivariate is used to identify the correlate between the two variables using the Chi-Square test.

**Result**

1. **Univariate Analysis**

Based on characteristics of respondents that majority of respondents was female (63.3%) and late elderly (30.0%), did not work (73.3%) with majority of high school education level. According to the duration of use inhaler the majority of respondents used more than 1 year (83.3%) by used MDI and DPI is equal (50%) with use inhaler in appropriate way is 53.3%.

2. **Bivariate Analysis**

<table>
<thead>
<tr>
<th>Inhaler type</th>
<th>Accuracy</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correct</td>
<td>Incorrect</td>
<td></td>
</tr>
<tr>
<td>MDI</td>
<td>4</td>
<td>13.3</td>
<td>11</td>
</tr>
<tr>
<td>DPI</td>
<td>10</td>
<td>33.3</td>
<td>3</td>
</tr>
</tbody>
</table>

Bivariate analysis result by using statistical test Chi-Square shows that many respondents incorrect to use MDI compare to DPI and there is significant correlate between Inhaler type with accuracy to use inhaler. From this test result, p-value 0.026.

**Discussion**

Majority of asthma patients is female due to hormonal factor. Estrogen hormone increase corticosteroid production associated with globulin, while progesterone hormone compete with cortisol hormone to associate with the side of globulin. Estrogen hormone and progesterone hormone can...
affect cortisol free level that will cause to total cortisol reduction. Cortisol reduction will lead to bronchial constriction and in the end it will result into bronchial asthma attack. Estrogen hormone also can increase adhesion on endothelial cells in blood vessel and combination between estrogen hormone and progesterone hormone so that it will increase eosinophil degranulation which in further it will lead to bronchial asthma attack (Saily, Adrianison, & Bebasari, 2014).

Research conducted by Haryanti, Ikawati, Andayani, dan Mustofa (2016) stated that lungs and bronchial size on female is smaller than male so it may affect to air circulation on respiratory system with percentage 67% compared to male. Based on age characteristics of respondents shows mostly respondents are from late elder with 9 respondents (30,0%), which is including to non productive age and most of them not working. However most of respondent used inhaler more than one year (83.3%) but they use incorrect 55,3%.

This result is supported by Anggraini (2011) that found 85,71 % of respondents use inhaler in incorrect procedure. This research is similar with Purnamasari (2012) which stated most of asthma patients do not know how to use inhaler. Inaccuracy in inhaler usage will cause to inappropriate drugs dosage. It also will risk to candidiasis orofaringeal (sprue) and dysphonia (hoarseness) (National Asthma Council Australia, 2016).

Steps in inhaler usage that is often forgotten by asthma patients with MDI inhaler is in step 3 which is 8 patients can not hold inhaler vertically and do not shake inhaler tube. This result is similar with Prakoso (2015) with 8 respondents do not shake inhaler tube first before using inhaler. It will cause to decreasing in right amount of dosage.

Asthma patients with turbuhaler inhaler often forget step 8 with 2 patients hold their breath at least 5 seconds. Research done by Lorensia, Queljoe, Karina, Heru (2016) stated that purpose of step 8 about hold breath for 5 seconds can create longer contact time so drugs can settle on bronchioles, however if step 8 is performed not in accordance then the effect of drugs will be not maximum and lead to lower bronchial dilatation. Asthma patients with accuhaler inhaler often forget step 4 which is breath slowly and stay away from inhaler. Lorensia, Queljoe, Karina, Heru (2016) stated that purpose of this step is to help in self preparation to take a deep and strong in order to create good inspiration blood glow and able to inhale drugs dosage maximally. Exhale normal breath but not close to mouthpiece accuhaler because it can cause to drugs dosage will fly off or lost and create humidity in accuhaler so dry powder cause to clot and difficult to inhaled.

Conclusions

The result showed that the majority of respondents characteristic sex distribution the most are women with total of 19 respondents(63.3%), age distribution of respondents is the largest number of elderl y end with 9 respondents (30,0%), most respondents are not working 22 responde nts (73,3%) and with level education in high senior school 12 respondents (40.0%) and use inhaler majority more than one year 25 respondents (83,3%).

The distribution of the index by the masses of the body most respondents are normal category 12 respondents (40.0%). According to analysis of Chi-Square that there is singificanly between inhaler type and usage accuracy among Indonesian asthma patients (0.026). The result of study concluded that expects every public health center to perform evaluation on the type of inhalers used and accuracy of the use of inhalers on asthma patients.

Acknowledgements

Thank you so much to respondents, public health centre employees, advisor,
and all respondents who already contribute to this study.

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CAREGIVER’S LIVED EXPERIENCES IN CARING FOR POST-STROKE PATIENTS: A PHENOMENOLOGICAL INQUIRY

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Abstract

Objectives: Cognitive impairment is the problem of stroke sufferers. Cognitive impairment can lead dementia after stroke and effect patient’s life to fulfill activities of daily living, and need help from caregiver. Taking care post-stroke patients will impact to physical, psychological, and social of caregivers. Method: This research was qualitative research with phenomenological approach that aimed to explore the experiences of caregivers treats post stroke patient with cognitive impairment. This research used purposive sampling technique with three participants. Data was collected through semi-structured in-depth-interview. The method of Colaizzi used to analyzed data. Results: The research results obtained 5 themes: (1) caring-overview clients with stroke, (2) contriving-assisting in ADLs, (3) challenging-going beyond expectation to overcome challenges, (4) carving-improving oneself, (5) crafting-overall impact of the caregiver. Conclusions: Treats post stroke patient with cognitive impairment can effect to caregivers. The results of this research were expected to be able to obtain a better understanding to caregivers who have experiences treats patients with cognitive impairment in post stroke.

Keywords: cognitive impairment, experience, caregiver, stroke

Background

Stroke is a common neurological disease that should be dealt quickly and appropriately (¹). Stroke is the second diseases in the world's that causes death (²). In Indonesia, the prevalence of stroke based on the diagnosis of health personnel by 7 per mil (³). The prevalence of stroke in Riau diagnosed based on interviews of health workers by 4.2 per mil (⁴).

In patients with stroke will emerge all sorts of problems from mild to severe, such as paralysis, speech impairment, emotional disturbance and cognitive impairment (⁵). Cognitive impairment in stroke patients is a result of brain damage to the frontal lobe capacity, memory, or intellectual functioning cortical (¹).

Cognitive function if it is not anticipated that dementia after stroke could happen and will interfere with daily activities (⁶). Post-stroke patients have a dependency to fulfill daily needs, so requiring assistance from a caregiver or family (⁷).

Caregivers experiences chronic stress that causes physical and psychological pressure (⁸). Caregivers also experience social isolation, physical disorders, and financial problems (⁹), so taking care of patients with post-stroke can affect the caregiver's quality of life (¹⁰).

The purpose of this study was to explore caregivers experiences in caring for post-stroke patients with cognitive impairment.

Methods

This study used a qualitative method with phenomenological approach. Participants in this study were three
participants are families who taking care for post-stroke patients with cognitive impairment in the area of Puskesmas Harapan Raya in Pekanbaru City.

Ethics of research used in this study, that informed consent, anonymity, confidentially, respect for autonomy, the principle of watching well-being of participants, and the principle of justice for all participants (11,12).

Collecting data in this study using semi-structured interviews in the category of in-depth interview. The study was conducted two meetings with samsung tablet data uses as collecting tool as a means of recording interviews, field notes on observations during the interview process and interview script.

In this study, researchers conducted a data analysis techniques using Collaizi approach.

Result

Characteristics of participants in this study can be seen in Table 1.

Results of research conducted data analysis after getting five themes, namely: (1) caring-overview clients with stroke, (2) contriving-assisting in ADLs, (3) challenging-going beyond expectation to overcome challenges, (4) carving-improving oneself, (5) crafting-overall impact of the caregiver.

1. Caring-Overview Clients with Stroke

The results of the data analysis using in depth interviews conducted in participants found that overview clients with stroke by caregivers that is memory and psychological.

a. Memory

Memory is a information that someone get and still remember. Overview memory of clients with post stroke by caregivers is clients experiences forgotten.

b. Psychological

Psychological of post-stroke patients with cognitive impairment changes. Changes experienced by post-stroke patients with cognitive impairment experienced by a family that is a change in attitude, temper, anger, and temper.

2. Contriving-Assisting in ADLs

One of the things done by the family in caring for patients with post-stroke family with cognitive impairment is ADLs to fulfill patient’s needs. ADLs of clients with post stroke that participants assisting such as preparing meals, bathing, defecation, and medicine.

3. Challenging-Going Beyond Expectation to Overcome Challenges

Barriers was found by the family while caring for patients post-stroke patients with cognitive impairment are barriers to communication.

4. Caring-Improving oneself

Family member who get sick will have an impact on the family. The impact on the family experienced by the participants are physical impact, psychological, and social activities. For more details, described as follows:

a. Physical

In treating post-stroke patients with cognitive impairment families experiencing physical health effects such as fatigue, vertigo, pain in the waist, and weight changes.

b. Psychological

Impact of psychological changes experienced by the family during the post-stroke care for patients with cognitive impairment submitted by participants are tired, angry, emotional and upset.

c. Social

In treating post-stroke patients with cognitive impairment will impact on the social lives of families who care for patients is difficult to travel, but the second participants did not experience any impact on social life.
### Table 1 Characteristic of Participants

<table>
<thead>
<tr>
<th>Category</th>
<th>Name</th>
<th>Age</th>
<th>Education</th>
<th>Occupation</th>
<th>Ethnic</th>
<th>Religion</th>
<th>Relation with Patient</th>
<th>Type of Stroke</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Ny.M</td>
<td>55 yo</td>
<td>S1</td>
<td>Housewife</td>
<td>Batakense</td>
<td>Islam</td>
<td>Wife</td>
<td>Ischemia</td>
<td>16 years</td>
</tr>
<tr>
<td>P2</td>
<td>Ny.N</td>
<td>40 yo</td>
<td>S1</td>
<td>Teacher</td>
<td>Malayu</td>
<td>Islam</td>
<td>Daughter</td>
<td>Ischemia</td>
<td>1 year</td>
</tr>
<tr>
<td>P3</td>
<td>Ny.R</td>
<td>38 yo</td>
<td>D1</td>
<td>Housewife</td>
<td>Malayu</td>
<td>Islam</td>
<td>Daughter</td>
<td>Ischemia</td>
<td>5.5 years</td>
</tr>
</tbody>
</table>

5. **Crafting-Overall Impact of The Caregiver**

Caregivers when caring for patients with post-stroke with cognitive impairment have a different response. Based on the interviews conducted, the response of participants when treating post-stroke patients with cognitive impairment which are a positive response and negative response.

a. Positive response

Participants experienced a positive response when treating post-stroke patients with cognitive impairment that participants be grateful with the patient's condition and accept the conditions of the patient.

b. Negative response

Participants experienced a negative response when treating post stroke patients with cognitive impairment in which participants felt uneasy and give up on patient condition.

**Discussion**

All participants stated that post-stroke patients with cognitive impairment experiences forgetful and changes in emotion that is characterized by emotional, anger, temperamental, sensitive, and low self-esteem.

A person with cognitive impairment experience changes in memory, motor imbalance, anxiety, depression, irritability, and agitation (13). The change is due their brain damage to the frontal lobe capacity, memory, or cortical intellectual function (1).

Patients with cognitive impairment decreased ability to fulfill the function of Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) and patients may need assistance in the long term (14). Assisting patient's ADLs is very important for the patient, so the patient can still carry out daily activities (15). Based on the results of this study showed that one out of three participants require total care, while the two other participants require partial care.

The basic needs are identified as personal hygiene, nutrition, rest, mobilization, social, and medication (16). The results of this research indicate that the family assist patients in fulfill the needs of patients such as nutrition by preparing food, personal hygiene by washing the patient, medication.

Disturbances in cognitive function can lead to a breakdown of communication on the sufferer, so it can be difficult for a person to communicate (17). It is appropriate with the results found in this study in which participants experience obstacles in treating patients that is an obstacle to communicate with patients.

Barriers in communication with the patient make it difficult for participants to understand the desire or things that want to be delivered by post-stroke patients with cognitive impairment, so as to know the intentions and wishes of the patient, participants were only guessing and trying to ask back to the patient. To
communicate with the patient's cognitive impairment can be done by asking again what has been listened to, not interfere with the patient while talking, and use body language. 

During taking care of post-stroke patients with cognitive impairment impact on the physical, psychological, and social of participants. Families who care for patients with cognitive impairment will have an effect on physical health, psychological, social isolation, and financial distress.

Taking care for family members with cognitive impairment giving positive and negative response. The responses given by the participants depends mechanism of coping. This is according to the study where there are positive and negative response to participants when treating post-stroke patients with cognitive impairment.

**Conclusion**
Treats post stroke patient with cognitive impairment can effect to caregivers. The results of this research were expected to be able to obtain a better understanding to caregivers who have experiences treats patients with cognitive impairment in post-stroke.

**Acknowledgements**
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NURSES’ UNDERSTANDING OF EVIDENCE BASED PRACTICE: KNOWLEDGE, PRACTICE AND ATTITUDE

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Abstract

Objective: Evidence based practice (EBP) is an approach to facilitating the transfer of evidence into quality clinical practice. Method: This study is descriptive study. Using total sampling and data were nurses collected from 141 nurses in Medical-Surgical ward. The instrument used in this study was Evidence Based Practice Questionnaire (EBPQ). Result: The result of this study shows that overall nurses’ understanding of EBP is at the moderate level (53.9%). Conclusion: Based on EBP components the result of the study depicts that knowledge of EBP is at high-level comparing to practice and attitude. This study is finding gaining insight into how EBP is understood will inform the need for effective way to introduce and develop EBP in clinical practice for nurses. Therefore, the consequences of failure to understand and articulate EBP will impact on the quality of care.

Keywords: attitude, EBP, knowledge, nurses, practice, understanding of EBP

Introduction

EBP is a clinical practice approach to solving problems with the latest best evidence along with the clinical expertise, choices and values of clients in making decisions about client care¹. EBP is a combination of individual experience or professional expertise with external evidence in the process of nursing care to produce an appropriate nursing practices that will affect positive outcomes for patients or clients².

EBP assists nurses in providing nursing care and solving patient problems. EBP also assists nurses in providing more innovative health services, exceeds quality standards, and helps nurses provide consistent services through effective and efficient decision-making processes³.

In Indonesia there are several studies related to EBP, one of which is research conducted in Tanjungpura, West Kalimantan by Ligita⁴. This study investigated how the nurse's knowledge, attitude, and readiness in the implementation of Evidence-Based Practice. The results of this study say that the evidence-based nurse's knowledge or EBP is still very low. However, more than half of the nurses who participated in this study had a positive attitude towards evidence-based practice.

Research conducted by Sandofa, Rudini and Fitri⁵ on 26 nurses at Raden Matteher Jambi Hospital entitled "Overview of Perceptions of Implementing Nurses in the Intensive Care Unit (ICU) regarding EBP", found that only 54.4% of nurses evaluated nursing practice have been done. The study also showed that of the 26 nurses who were respondents only 59.1% of nurses knew the term EBP, 45.5% of nurses could not critically assess a scientific work, and only 59.1% of nurses thought that EBP was important in nursing practice.

Based on the results of interviews conducted by researchers in the preliminary study on January 31, 2018...
3 inpatient rooms with a total of 5 nurses in Arifin Achmad Regional Hospital were informed that 2 out of 5 nurses knew and understood about EBP and could explain how the EBP was implemented. Of the 3 nurses who did not understand, 2 of them only had heard but did not know what was meant by EBP, while 1 nurse understood EBP after having explained the meaning of the EBP. From interviews conducted in 3 different inpatient rooms it was also found that only 1 inpatient room had implemented EBP in the field in accordance with what they got in training and seminars, such as in the process of wound care and blood transfusion process. Based on the description above, the researcher assumes that nurses need to understand what is meant by EBP so that nursing practice can innovate, so that it will provide effective and effective care.

**Method**

This research is a descriptive research using total sampling technique. Respondents in this study amounted to 141 nurses who worked in the Medical Surgical inpatient room of Arifin Achmad Pekanbaru Hospital. The instrument used in this study is EBPQ (Evidence Based Practice Questionnaire) developed by Upton and Upton.

**Result**

Based on questionnaire, complete data can be seen on table 1.

Table 1: Frequency of distribution characteristics of age, sex, level of education and length of work.

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-35 years (early adult)</td>
<td>95</td>
<td>67.4</td>
</tr>
<tr>
<td>36-45 years (late adult)</td>
<td>39</td>
<td>27.7</td>
</tr>
<tr>
<td>&gt;45 years (elderly)</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>12.8</td>
</tr>
<tr>
<td>Female</td>
<td>123</td>
<td>87.2</td>
</tr>
<tr>
<td><strong>Level of education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1 Keperawatan</td>
<td>96</td>
<td>28.4</td>
</tr>
<tr>
<td>D3 Keperawatan</td>
<td>5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Table 2: Length of work

<table>
<thead>
<tr>
<th>Length of work</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>26</td>
<td>18.4</td>
</tr>
<tr>
<td>6-10 years</td>
<td>70</td>
<td>49.6</td>
</tr>
<tr>
<td>&gt; 10 years</td>
<td>45</td>
<td>31.9</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>100</td>
</tr>
</tbody>
</table>

The results of this study indicate that most of them are at the age of 35-45 years (early adulthood) as many as 95 people (67.4%), the sex of the majority of female respondents amounted to 123 people (87.2%), the education level of respondents was mostly D3 totaling 96 people (68.1%), and the most work duration of respondents is 6-11 years totaling 70 people (49.6%).

Table 2: Frequency of distribution nurses’ understanding about EBP based on knowledge, practice and attitude

<table>
<thead>
<tr>
<th>Characteristics of nurses’ understanding</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>88</td>
<td>62.4</td>
</tr>
<tr>
<td>Moderate</td>
<td>51</td>
<td>36.2</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Practice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>44</td>
<td>31.2</td>
</tr>
<tr>
<td>Moderate</td>
<td>94</td>
<td>66.7</td>
</tr>
<tr>
<td>Low</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Attitude</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>53</td>
<td>37.6</td>
</tr>
<tr>
<td>Moderate</td>
<td>50</td>
<td>41.1</td>
</tr>
<tr>
<td>Low</td>
<td>38</td>
<td>21.3</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 showed that respondents had a high knowledge about EBP as much 88 person (62.4%), practice that related with EBP was in moderate level that is 94 person (66.7%), and nurses attitude related with EBP was 58 person (41.1%).

Table 3: Frequency of distribution nurses’ understanding about Evidence Based Practice (EBP)
The results of this study also show nurses’ understanding based on knowledge, practice and attitude. The study found that nurses had high knowledge about EBP as many as 88 people (62.4%), the practice of EBP related to the majority was 94 people (66.7%), and the attitude of nurses related to EBP mostly had a positive attitude (medium) as many as 58 people (41.1%). And most respondents have a moderate understanding of 76 people (53.9%). Very few have a low understanding of 2 people (1.2%).

**Discussion**

Based on the results of research conducted on 141 respondents showed that the level of knowledge of nurses knowledge about EBP most nurses have high knowledge, amounting to 88 (62.4%). The results of this study are in accordance with the study of Sandofa, Rudini, and Fitri, on the description of the perception of nurses implementing in the Intensive Care Unit (ICU) regarding EBP, in which their research found 59.1% of 26 respondents had good (high) knowledge. 45.5% of 26 people still have not been able to provide a critical assessment of the literature and the latest research results. Research conducted by Gerrish, Asworth, Lacey, and Bailey found different results where the knowledge held by nurses related to EBP was still relatively low.

Knowledge of the EBP concept and clinical experience is important because experience and knowledge are factors that can affect the quality of nursing services and practices. Therefore, adequate knowledge is needed regarding EBP in implementing EBP in nursing practice. In addition nurses also need to be aware of what Evidence Based Practice means in order to apply the concept in nursing practice correctly. High knowledge regarding EBP will provide unlimited access to innovative and effective nursing interventions. EBP will improve skills and improve the quality of patient care.

In addition to knowledge, nursing practice is also needed in implementing EBP. Nursing practices carried out based on EBP will provide an effective nursing process that will improve the quality of nursing practice. Nursing practice is the ability of nurses to search for scientific sources in the form of the latest literature and research, critically assess these sources and their implementation. Most of the nurses’ understanding of the practice in this study amounted to 94 people (66.7%).

The results of this study are in line with the research conducted by Sandofa, Rudini, and Fitri, in his study 59.1% of 26 respondents had good practices and realized that EBP was important to practice clinical nursing. Shafiei, Baratimaramani, Goharinezhad, Kalhor, and Azmal found that nurses had good nursing practices related to EBP compared to attitudes and knowledge related to EBP. Implementing EBP will be well implemented if the nurse has a positive attitude towards EBP. A positive attitude can be demonstrated through good support for the implementation of EBP so that the implementation of EBP can run effectively. Nurses must actively participate in finding ideas or scientific evidence from existing research, and make the idea as new knowledge. The results of this study found that the attitude of nurses related to EBP was quite positive (moderate) related to EBP, amounting to 58 people (41.1%). This research is consistent with research conducted by Gerrish, Ashworth, Lacey and Bailey, which identifies that nurses have normal (moderate) attitudes related to EBP.
Shafiei, Baratimarnani, Goharinezhad, Kalhor, and Azmal\textsuperscript{10}, where EBP-related attitudes are research conducted in California by Brown et al\textsuperscript{11}, found that attitude is the highest item of the EBP component, which is then followed by knowledge and practice. Ligita\textsuperscript{4} in her study found that more than half of nurses (respondents) had a positive attitude towards Evidence Based Practice (EBP), that is only 2/3 of the number of nurses who had attitudes that supported actions that were in line with EBP.

A positive attitude towards EBP is not only determined by the ability to identify research results, but also the ability to apply EBP to nursing practice. By applying EBP, health workers will realize that the results of research carried out are useful to be applied in nursing practice\textsuperscript{12}.

The results of this study indicate that the majority of nurses' understanding of EBP is 76 people (53.9%). Knowledge, practice and attitude in this study are components of nurses' understanding of EBP. Research conducted by Upton and Upton (2006) divides the proportion of each factor, namely 33.08% for practice, 17.07% for attitude, and 11.63% for knowledge, with a total of 61.77%. This means that practice has the largest proportion compared to knowledge and attitude. Research involving nurses in these general hospitals has found that basically they as nurses have high knowledge, but there are still gaps in practice and attitudes, so that the understanding of nurses in this study is still in the medium category. This shows that nurses' understanding is not only influenced by the high level of knowledge they possess, but also influenced by the practices and attitudes of nurses towards EBP. Therefore, EBP is a very necessary thing to be given to health workers, especially nurses so that EBP can be applied in nursing practice so that it can improve nursing services.

Conclusions

EBP is nursing practice based on evidence or results from a research. EBP is a systematic approach with rational decision making. EBP will provide unlimited access to innovative and effective in nursing interventions. EBP will improve nurses’ skill and knowledge and also improve the quality of patients care.

Results of this study showed that most of nurses had a moderate understanding about EBP that is 76 person (53.9%). This is showed that not all of nurses understand with EBP even though nurses in this study have a high level of knowledge, but nurses’ practice and attitudes related to EBP still to be improved, so that the quality of nursing practice becomes more effective.

Acknowledgments

Countless thanks for guidance from various parties in the completing this research.

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THE EFFECT OF PICTORIAL HEALTH WARNING LABELS ON SMOKING INTENSITY IN ADOLESCENTS

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Abstract

Objective: Measures are needed to address adolescents’ smoking behavior. This study aimed to assess the effect of pictorial health warning labels on smoking intensity in adolescents. Method: The design of this research was quasi experiment with non-equivalent control group. The sampling technique used was proportionate stratified random sampling. This study involved 34 smoker students from a junior high school, which was chosen based on recommendation from Department of Education and Culture in Pekanbaru City. An approval letter from school principal was received prior to conducting research. Samples were divided into 17 respondents of intervention group and 17 of control group. Respondents of intervention group were shown pictorial health warning labels for 10 minutes everyday during 2-week intervention. Daily smoking intensity was measured before intervention and after 2-week intervention based on students’ report. Respondents of control group were given the same intervention after post-intervention data was collected. The data was analysed by using univariate and bivariate analysis with a computer software. Results: Before intervention was given, the mean number of cigarette smoke in experimental group was 4.65 cigarettes, and after intervention the number decreased to 3.47 cigarettes. The result showed significant decrease in smoking intensity with p value (0.000 < α (0.05)). Conclusions: Pictorial health warning labels had effect on smoking intensity in adolescents. It is suggested that school authority and school nurse to develop health promotion activities by using pictorial health warning labels and other printed media to lessen smoking behavior in adolescents.

Keywords: Adolescents, labels, pictorial warning, smoking intensity.

Introduction

Adolescence is a period characterized by the process of seeking self-identity and wanting to try new things that make teenagers trapped in bad behavior (Ali & Ashori, 2012). Adolescence is also called a period of identity crisis. If adolescents cannot resolve their identity crisis properly, then adolescents will feel an inability to obtain roles and find themselves. This will cause teenagers to behave badly (Soetjiningsih, 2010). Alamsya and Nopianto (2017) stated that negative attitudes of adolescents risked 9.9 times smoking behavior.

The highest smoking age was at the age of 15-19 years (55.4%). The first smoking age for men at the age of 12-13 years and for women at the age of 14-15 years (Ministry of Health RI, 2014). The percentage of smokers aged 13-15 years in men (21.4%) and women (1.5%) (WHO, 2017).

In overcoming the increase in cigarette consumption, the government has issued Government Regulation No. 109 of 2012 concerning safeguarding
materials containing addictive substances in the form of tobacco products for health. Then, this Government Regulation was strengthened by the issuance of the Minister of Health Regulation No. 28 of 2013 concerning the inclusion of health warnings and health information on the packaging of tobacco products in the form of pictures and writing.

Health warnings are pictures and writings that provide information about the dangers of smoking. Health warnings on cigarettes include pictures of smoking, mouth, images of throat cancer, pictures of people smoking with smoke forming skulls, pictures of people smoking with nearby children, and images of lungs blackened from cancer (Ministry of Health, 2013). Research conducted by Sychareun, Hansana, Phengsavanh, Chaleunvong, and Tomson (2015) states that pictorial health warnings are more effective than written warnings because pictorial health warnings can strengthen awareness of the effects of smoking and arouse fear of smoking among smokers.

**Method**

The design in this study is Quasi Experiment with the research design of Non-Equivalent Control Group. The population in the study were students who smoked VII and VIII classes at SMPN 16 Pekanbaru.

The samples were divided into 17 respondents of intervention group and 17 of control group. Respondents of the intervention group were shown as pictorial health warning labels for 10 minutes everyday during 2-week intervention. Daily smoking intervention based on students' report. Respondents from the control group were given the same intervention after the post-intervention data was collected. The data was analyzed by using univariate and bivariate analysis with a computer software.

**Results**

The results of research conducted on May 26 - June 8 2018 for 34 respondents in Pekanbaru 16 Junior High School obtained the following data:

**A. Univariate Analysis**

**Characteristics of Respondents**

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Distribution of Respondent Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Characteristics</td>
</tr>
<tr>
<td>Respondent Age:</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Gender of Respondents:</td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>17</td>
</tr>
<tr>
<td>Woman</td>
<td>0</td>
</tr>
<tr>
<td>Class of Respondents:</td>
<td></td>
</tr>
<tr>
<td>7th grade</td>
<td>8</td>
</tr>
<tr>
<td>8th grade</td>
<td>9</td>
</tr>
<tr>
<td>First Age Once Smoking Respondents:</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 1 shows the distribution of respondents according to the highest age is 13 years as many as 13 students (38.25%), followed by the distribution of the most respondents by sex were male as many as 33 students (97.05%). In the distribution of respondents according to the class the most are class 8 as many as 18 students (52.9%). Whereas the distribution of respondents according to the first age at the most smoking was 12 years as many as 13 students (38.25%).

**2. Intensity of Smoking Before and After Intervention in Experiments and Control Groups Not Given Intervention**

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Smoking Intensity Distribution Before and After Intervention in Experiments and Control Groups Not Given Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Experiment</td>
</tr>
<tr>
<td>Pre test</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>17</td>
<td>4.65</td>
</tr>
<tr>
<td>Post test</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>17</td>
<td>3.47</td>
</tr>
</tbody>
</table>

| Control | Pre test | | | | |
| N | Mean | SD | Min | Max |
| 17 | 5.35 | 1.656 | 2 | 3 |
Table 2 shows the average intensity of smoking in the experimental group before intervention was 4.65 stems while the average intensity of smoking in the control group was 5.35 stems.

The average intensity of smoking after intervention in the experimental group was 3.47 stems while the average intensity of smoking in the control group was 5.65 stems.

B. Bivariate analysis

1. Difference in Intensity of Smoking Before and After Intervention in Experimental Groups and Control Groups

Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>4.65</td>
<td>1.2</td>
<td>1.935</td>
<td>0.000</td>
</tr>
<tr>
<td>Post test</td>
<td>3.47</td>
<td></td>
<td>1.700</td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>5.35</td>
<td>-0.3</td>
<td>1.656</td>
<td>0.096</td>
</tr>
<tr>
<td>Post test</td>
<td>5.65</td>
<td></td>
<td>1.412</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the average intensity of smoking after giving pictorial and written health warnings decreased, where the results of the pre-test in the experimental group were 4.65 sticks and the post-test results were 3.47. Based on the dependent t test in the experimental group obtained p value (0.096) > α (0.05), this result means that there was no significant difference between the average smoking intensity of pre-test and post-test in the control group.

2. Difference in Intensity of Smoking After Intervention in Experimental Groups and Control Groups that Are Not Given Interventions

Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment Group</td>
<td>Post test</td>
<td>3.47</td>
<td>-2.3</td>
<td>1.700</td>
</tr>
<tr>
<td>Control Group</td>
<td>Post test</td>
<td>5.65</td>
<td></td>
<td>1.412</td>
</tr>
</tbody>
</table>

Table 4 shows that the average intensity of post-test smoking in the experimental group was 3.47 stems while the average intensity of smoking at post-test in the control group was 5.65 with a difference in average difference of -2.3 stems. The independent t test test results obtained p value (0.000) < α (0.05). This shows that pictorial health warning labels and writings about the dangers of smoking affect the intensity of smoking in junior high school students.

Discussion

A. Characteristics of Respondents

1. Age

From the results of the study, the most respondents were at the age of 13 years, namely 13 students (38.25%). This research is supported by the theory of Tarwoto et al. (2012) states that age 13 is classified as early adolescence (10-14 years). Early adolescents are characterized by demanding freedom and tend to behave...
rebelliously. Ali and Ashori (2012) mention adolescence is a phase of life which is characterized by the process of searching for identity. Widiansyah (2014) stated that the feeling of wanting to try and curiosity about cigarettes is a reason that encourages teenagers to smoke.

According to the assumption that age researchers influence a person's behavior. Teenagers who are in the developmental stage of seeking self-identity, freedom, and high curiosity make teenagers try new things. Teenagers are an age that is easily affected by the surrounding environment. When teens see someone who smokes, the teenager will be affected to try the cigarette.

2. Gender

Research on 34 people who smoked showed that the majority of respondents were male as many as 33 students (97.05%). Sulistyawan (2012) states that male students have 10.9 times the chance to smoke than women. The percentage of smokers according to WHO (2017) aged 13-15 years in men (21.4%) and women (1.5%).

According to the assumption, the gender researcher influences a person's habits. Boys assume that smoking is a sign of masculinity, showing themselves macho, and brave. In society, boys who smoke are normal, while girls who smoke are uncommon.

2. First Age Smoking

The highest distribution of respondents based on the first age of smoking at the age of 12 years is 13 students (38.25%) and the least at the age of 10 years is 2 respondents (5.9%). Students who are 12 years old generally sit in elementary school (grade 6). Akbar (2016) states that the first age of smoking is 12-15 years (50%).

The Ministry of Health of the Republic of Indonesia (2014) states that the age of smoking is the first time for men aged 12-13 years and for women aged 14-15 years. The ASEAN Tobacco Control 2nd edition 2014 the early age of smoking in Indonesia at the age of 10-14 years.

Soetjiningsih (2010) states that each cigarette contains 6-11 mg of nicotine and 1-3 mg will be absorbed by the body. If a smoker smokes a pack of cigarettes per day, the amount of nicotine smoked is around 20-40 mg per day.

According to the assumption of researchers the first age of smoking affects one's smoking dependence. The earlier a person smokes, the higher the level of nicotine in the body that makes dependence so that it is difficult to reduce the intensity of smoking and even stop smoking.

A. Effect of pictorial health warning labels and writing on cigarette packaging on the intensity of smoking in junior high school students

a. Differences in the intensity of smoking before and after intervention in the experimental group and the control group.

The measurement of the smoking intensity of the experimental group obtained the mean results before being given a pictorial health warning label and the writing about the dangers of smoking in the experimental group was 4.65 cigarettes. The result of dependent t test obtained p value of smoking intensity (0.000) <α (0.05). This means that there is a significant effect between the mean intensity of smoking in the experimental group before and after giving pictorial health warning labels and writing about the dangers of smoking.

This research is supported by research conducted by Indrawani, Mailani, and Nilawati (2014) which states that there is a positive relationship between the attitude towards the packaging label warning of the dangers of smoking with
the intention to stop smoking and there is a positive relationship between perceptions of behavioral control and intention to stop smoking.

b. The difference in the intensity of smoking after intervention in the experimental group and the control group who were not given intervention.

The independent t test test results mean that the intensity of smoking after intervention in the experimental group and controls that are not intervened shows the value of p value (0,000) <α (0,05), meaning that H0 is rejected. It can be concluded that pictorial health warning labels and writings about the dangers of smoking are effective against the intensity of smoking in junior high school students. This is because respondents regularly follow the research process provided and there is motivation from themselves to reduce the intensity of smoking.

Cigarette labels act as health information to deliver health warnings and increase knowledge about the dangers of smoking, reduce the desire of smokers in general, especially teenagers to smoke, and motivate smokers to stop smoking. Health warning labels in the form of pictures and writing have a more effective impact than just writing because the label beruba picture can be understood by people who are illiterate or children who are 2 groups of populations that are easily affected (Nurfadilah, 2015).

The Tobacco in Australia report in 2012 states that health warnings on cigarette packs in the form of images are more likely to be effective than text warnings, including as a deterrent to new smokers and as a means of increasing cessation among smokers. A warning in the form of an image is considered to delay a person to smoke, thereby reducing the intensity of smoking and stopping as an active smoker.

Research conducted by Sychareun, et al (2015) states that pictorial health warnings are more effective than written warnings because pictorial health warnings can strengthen awareness of the effects of smoking and arouse fear of smoking among smokers. The images on the reading have an influence on reading comprehension so that the reading in the form of images is easier to remember.

Research conducted by Wue, et al (2015) states that there is an influence between graphic pictorial health warnings with the intention to stop smoking. This study was reinforced by Blanton, et al (2015) states that there is an influence between graphic pictorial health warnings on the intention to reduce cigarette consumption in young adults and increase smoking cessation intentions. The impact of health warnings on cigarette packs affects smokers and nonsmokers. Health warnings on cigarette packaging can encourage users to think about quitting smoking, preventing dependence, and raising awareness of the dangers of smoking (GATS, 2015).

According to the assumption that researchers picture health warnings in the form of pictures and questions about diseases caused by smoking will make people who see it afraid. This fear will increase one's awareness of health. Fear also makes someone postpone lighting a cigarette fire. So that cigarette consumption can be slowly reduced.

Conclusions

The results of the measurement of smoking intensity in the experimental group with the dependent t test obtained p value (0,000) <α (0,05) while the results of the measurement of the intensity of smoking in the control group with dependent t test obtained p value (0,096)> α (0,05 ). The independent t test test results obtained p value (0,000) <α (0,05). It was concluded that by providing pictorial health warnings and writing about the dangers of cigarettes for 2 weeks it could
reduce the intensity of smoking effectively in junior high school students.

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http://journals.sagepub.com/
EMERGENCY NURSES KNOWLEDGE ABOUT TRIAGE

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Abstract

Objective: One of the positive predictors of efficient case handling in the hospital emergency room (ER) is the nurses’ triage knowledge. This study aims to identify nurses’ emergency knowledge about triage. Method: This study was conducted in ER Arifin Achmad Hospital. Descriptive study was used with total sample of 31 emergency nurses. Triage knowledge was measured using questionnaire developed by the researcher with triage indicators: understanding of triage; the purpose of triage; triage principal and triage documentation and has been tested for its validity and reliability. Descriptive analysis was used to describe nurses’ knowledge of triage. Result: The findings of this study show that in general emergency nurses have better understanding of triage with 51.6%, but there are still 48.6% of nurses who do not understand about triage. Conclusion: This study suggests that nurses knowledge related to triage need to be improved in order to deliver prompt quality of care.

Keywords: Emergency room, ER, knowledge, nurses, triage, Emergency nurses


Introduction

The hospital is a health service institution that organises individual health services in a comprehensive, healing, and preventive to the community, where the hospital will provide services such as inpatient care, outpatient care, and emergency services (DEPKES RI, 2009).

Emergency services are services that require prompt and appropriate services to prevent death and disability, because time is life. In handling emergency patients, the ED has a triage system in performing emergency actions (Sabrianyanti, Islam, & Gaus, 2012). In the triage implementation in the emergency department, Arifin Achmad Hospital, used the Australian Triage Scale (ATS) assessment standard in accordance with the standards of the accreditation of the Arifin Achmad Hospital in Riau Province, (Profile of RSUD Arifin Achmad, 2017).

Triage is a process of selecting patients according to the level of gravity and priority in handling patients (Kartikawati, 2013). Triage-related research has been carried out by several previous researchers. Research conducted by Hosnaniah (2014) on the implementation of triage in the emergency unit of the Ralu Waluyo Hospital in Mojokerto stated that the emergency room nurses who did triage were still very minimal, from seven respondents only four respondents conducted triage in accordance with the House Standard Operating Procedure (SOP) sick. Research conducted by Ardiyani, Andri, & Eko (2015) about the analysis of the role of nurses about triage of waiting time and length of stay in the emergency department of dr. Saiful Anwar Malang stated that, nurses are very influential in the implementation of triage towards waiting time. The suitability of waiting time based on standards is seen especially in nurses who perform roles well.
An ER nurse must be able to work in the emergency department in dealing with all emergency cases, therefore, with emergency training, each emergency nurse can seek efficiency and effectiveness in providing services. Nurses' knowledge and skills in handling patients is one of the success factors in handling emergency cases (Nurhasim, 2014). Knowledge, attitudes, and skills of ED nurses are needed in clinical decision making so there is no fault in assessing triage so that in handling patients can be more optimal and directed.

The preliminary study was carried out in the Arifin Achmad Hospital, Riau Province by conducting an unstructured interview with nine ED nurses, five out of nine nurses who had understood well about triage, but four out of nine nurses still did not understand the classification of patients according to the level of gravity and priority in handling patients. The purpose of this study was to identify nurses' knowledge in the emergency room about triage. The results of this study can be used as an information and input related to nurses' emergency care about triage as a reference for the development of nursing science, especially in emergencies.

Method
This study was conducted in ER Arifin Achmad Hospital. Descriptive study was used with total sample of thirty-one emergency nurses. Triage knowledge was measured using questionnaire developed by the researcher with triage indicators: understanding of triage; the purpose of triage; triage principal and triage documentation and has been tested for its validity and reliability. Descriptive analysis was used to describe nurses’ knowledge of triage.

Results
A. Univariate Analysis
1. Characteristics of Respondents

Table 1
Respondent Frequency Distribution based on Demographic Data (N = 31)

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics of respondents</th>
<th>Frequency</th>
<th>Percentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21-34 years</td>
<td>19</td>
<td>61.3</td>
</tr>
<tr>
<td></td>
<td>old (early adult)</td>
<td>12</td>
<td>38.7</td>
</tr>
<tr>
<td></td>
<td>35-64 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(middle adult)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Man</td>
<td>13</td>
<td>41.9</td>
</tr>
<tr>
<td></td>
<td>Woman</td>
<td>18</td>
<td>58.1</td>
</tr>
<tr>
<td>3</td>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIII</td>
<td>20</td>
<td>64.5</td>
</tr>
<tr>
<td></td>
<td>S1</td>
<td>11</td>
<td>35.5</td>
</tr>
<tr>
<td>4</td>
<td>Length of work</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>≤5 years</td>
<td>10</td>
<td>32.3</td>
</tr>
<tr>
<td></td>
<td>&gt; 5 years</td>
<td>21</td>
<td>67.7</td>
</tr>
</tbody>
</table>

Table 1 shows that most of the respondents were more than 21-34 years old (early adults) as many as nineteen people (61.3%). The majority of respondents were female, amounting to eighteen people (58.1%). The highest level of education of respondents is Nursing DIII, amounting to twenty people (64.5%). The highest number of years of work for respondents was 5 years (67.7%).

2. Nurse's knowledge of emergency about triage

Table 2
Frequency distribution of nurses’ knowledge of emergency about triage (n = 31)

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>16</td>
<td>51.6</td>
</tr>
<tr>
<td>2</td>
<td>Not good</td>
<td>15</td>
<td>48.6</td>
</tr>
</tbody>
</table>

Table 2 shows that the level of knowledge of respondents about the knowledge of nurses about the triage is
mostly good knowledge, amounting to sixteen people (51.6%).

Table. 3  
**Cross tabulation of the characteristics of respondents with the level of knowledge**

<table>
<thead>
<tr>
<th>Characteristics of respondents</th>
<th>Kategori Pengetahuan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baik</td>
<td>Kurang</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34 years old (early adult)</td>
<td>N 10</td>
<td>% 32.3</td>
</tr>
<tr>
<td>35-64 years (middle adult)</td>
<td>% 61.3%</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>N 7</td>
<td>% 22.6</td>
</tr>
<tr>
<td>Woman</td>
<td>% 41.9%</td>
<td></td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIII</td>
<td>N 10</td>
<td>% 32.3</td>
</tr>
<tr>
<td>S1</td>
<td>% 61.3%</td>
<td></td>
</tr>
<tr>
<td>Length of work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤5 years</td>
<td>N 7</td>
<td>% 22.6</td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>% 58.1%</td>
<td></td>
</tr>
</tbody>
</table>

Table.3 shows that respondents who were well-informed mostly aged 25-34 years (early adults) were 32.2%. Respondents with good knowledge are mostly female, as many as 29%. The level of education of respondents with good knowledge has similarities between Nursing DIII and S1 Ners, namely 25.8%. Respondents who have good knowledge based on length of work are mostly found in respondents who have worked more than 5 years, namely 32.4%.

**Discussion**

The results of the study on knowledge showed that the level of knowledge of nurses in the emergency department about triage was mostly good knowledge, namely sixteen respondents (51.6%). The majority of respondents in this study were aged 21-34 years, namely nineteen respondents (61.3%). This affected the results of the respondents' level of knowledge and proved in the cross tabulation table that there were ten respondents (32.3%) of early adulthood who had knowledge good. In early adulthood, health workers who already understand triage because of adulthood is the time when a person reaches the peak of his intellectual abilities (King, 2010).

The results of cross tabulation on the level of knowledge based on sex, female respondents have a higher level of knowledge, namely nine respondents (29%) than men who only seven respondents (22.6%), but the female respondents also obtained nine respondents (29%) have poor knowledge, meaning that female respondents have a balanced amount of good and bad knowledge. This may be due to the higher number of female respondents than male respondents. These results indicate that there is no significant difference between the level of knowledge of respondents who are female or male, because between the two get information from the same source, for example from books, the internet or emergency training that has been followed.

Respondent's education also influenced the level of knowledge, as seen from thirteen respondents (35.5%) with S1 Ners education having 25.8% of respondents who had good knowledge about triage. Respondents who have Nursing DIII education are twenty respondents (64.5%) only 25.8% who have good knowledge. Ayuningtiyas (2013) states that the higher level of education will affect better change, someone who has a higher level of education will think more objectively and be open to insight in making decisions. Someone who has a high education will get better levels of knowledge and productivity at work.

The results of this level of knowledge are also related to the experience of the respondents, where there were twenty-one respondents (67.7%) who had more than five years working experience in the ED. The results of the cross tabulation of the length of work with
the level of knowledge prove that ten respondents (32.4%) have good knowledge about triage, but this result also shows that there are eleven respondents (35.5%) who have poor knowledge about triage. This shows that not all who have more than five years of experience working with good knowledge about triage, this can be caused by someone who has experience is not easy to receive new information as well as the triage used at the place where this research has been applied for the last two years. Knowledge is obtained because of the willingness of someone to receive information and have motivation in accepting new things so that one's knowledge can increase, but if the individual himself does not have the willingness to receive the information then it can be ascertained that his knowledge will not increase.

Knowledge is a thought that can be obtained from one's experience in knowing or understanding something. Some things that can be factors that influence knowledge according to Budiman and Rianto (2014) include education, information / mass media, social, cultural and economic, environmental, experience and age. Education influences the learning process, the higher one's education, the easier it is for the person to receive information.

The results of this study also found that there were still fifteen respondents (48.4%) of the thirty-one respondents who had poor knowledge about triage, this meant that they still had to improve their knowledge about triage. This may be due to the type of triage used, namely the Australian Triage Scale (ATS), which was only implemented in 2016 at the Arifin Achmad Hospital General Hospital, Riau Province. Another factor that can cause a lack of knowledge is low motivation and self-awareness to seek information related to triage.

Conclusion

Triage is a process of selecting patients according to the level of gravity and priority in handling patients. The knowledge of nurses of the ED is very much needed in clinical decision making so that there is no mistake in assessing triage so that in handling patients it can be more optimal and directed. The results of the study showed that the nurses of Arifin Achmad Hospital General Hospital mostly had good knowledge about the trainings as many as sixteen respondents (51.6%). The results showed that there were still fifteen respondents (48.4%) who had to increase their knowledge about triage.

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3Darwin Karim: Field of Scientific Lecturer in Surgical Nursing Faculty of Nursing Faculty, University of Riau, Indonesia.

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SELF-CARE PRACTICE OF CONGESTIVE HEART FAILURE PERSONS
ARIFIN ACHMAD HOSPITAL

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Abstract

Objective: This study aim to determine self-care for congestive heart failure. Method: The research sample was 44 patients with congestive heart failure in who were taken based using accidental sampling technique in Arifin Achmad Hospital. The measuring instrument used is the Self-care of Heart Failure Index (SCHFI) that had been tested for validity and reliability. The analysis used is descriptive analysis. Result: Findings of the study show that all of self-care dimensions are valued at good with 56.8% constitutes for self-care maintenance; 56.9% for self-care management, and 68.2% for self-care confidence. Conclusion: It is essential to establish self-care in patient with heart failure to improve self-care behavior. Nurses play an important role in this improvement.

Keywords: Congestive heart failure, developing country, Nursing, Self-care

Introduction

Congestive heart failure is a condition where the heart is unable to pump enough blood to meet the needs of the body's tissues caused by disruption of systolic or diastolic function, heart rhythm disturbances and incompatibility of preload and afterload that can cause death (Mariyono & Santoso, 2008).

The World Health Organization (WHO, 2014) states that in the world there are 20 million people a year die from cardiovascular disease problems. The prevalence of congestive heart failure in the United States in 2015 was 6.6 million and is expected to increase by 5.3 million by 2030 (American Heart Association (AHA, 2015). The Ministry of Health of the Republic of Indonesia (2013) shows that congestive heart failure is a disease the cause of death in Indonesia is around 9.7% of all heart disease. Based on the Medical Record of Arifin Achmad Hospital in Riau Province (2018), mentioning that the total number of patients suffering from heart failure in 2017 was 82 people and experienced an increase in 2018 with 437 people (Medical Record Arifin Achmad Hospital Riau Province, 2018).

Congestive heart failure is a disease that requires repeated treatment and treatment in the hospital (Karson, 2016). Self care is important for patients with chronic diseases such as in patients with congestive heart failure. Experience can improve patient knowledge related to signs and symptoms of disease, this will affect the ability of self care (Jang, 2009). The ability of self care obtained through the experience of patients with chronic diseases will have an impact on lifestyle changes and can directly affect the quality of life of these patients (Smeltzer & Bare, 2010). Self care is a naturalistic decision-making process for maintaining behavior to maintain physical balance and response to symptoms experienced (Riegel, Lee, Dickson, & Carlson, 2010). Self care from congestive heart failure is used to define self-care for congestive heart failure. This model includes 3 conceptual namely: self...
care maintenance, self management, self care confidence as the main concept. Self care maintenance is a behavior that is used to maintain physical balance, symptom monitoring, and medication adherence (Cocchieri et al., 2015). Self care management is the patient's ability to regulate himself, how to prevent symptoms and what patients can do if symptoms appear (Lee, Tkacs, & Riegel, 2009). Self care confidence is a belief in the patient's ability to carry out effective self-care regarding patient compliance in following self-care instructions to deal with symptoms caused (McGreal, Hogan, Irwin, Maggio, & Jurgens, 2014).

**Method**

**Participant**

This research was conducted at the heart Polyclinic and Flamboyan room of Arifin Achmad Pekanbaru Hospital starting from February to July 2018. This study used a descriptive research design. The population in this study were all heart failure patients who had been treated repeatedly in the heart polyclinic and in the flamboyant room at Arifin Achmad Hospital in Pekanbaru with a total of 80 people. Sampling in this study using accidental sampling technique with a sample of 44 patients.

**Questionnaire**

The data collection tool used in this study is the SCHFI questionnaire (Self Care of Failure Index) developed by Riegel et al. (2004). The questionnaire has 15 items of questions, namely 5 items for self care maintenance, 6 items for self care management, and 4 questions for self care confidence. The standard of measurement of self care is categorized as good and not good. SCHFI's assessment is categorized as good and poor, namely self care maintenance is said to be good if the value obtained is ian median (10) and is said to be less good if the value obtained is <median (10), self care management is said to be good if the value obtained ≥ means (16) and is said to be less good if the value obtained is <mean (16), while self care confidence is said to be good if the value obtained is ≥ median (12) and is said to be less good if the value obtained is <median (12).

**Statistical analysis**

Data analysis in this study uses univariate analysis. Univariate analysis was used to obtain the description of the demographic characteristics of the respondents which included: age, sex, last education, occupation, marital status, of disease and last treated with congestive heart failure.

**Results**

**A. Univariate Analysis**

1. **Characteristic of Respondents**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency Distribution</th>
<th>Presentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late adult</td>
<td>3</td>
<td>6,8</td>
</tr>
<tr>
<td>(36-45 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early elderly</td>
<td>18</td>
<td>40,9</td>
</tr>
<tr>
<td>(46-55 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late elderly</td>
<td>15</td>
<td>34,1</td>
</tr>
<tr>
<td>(56-65 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>seniors (&gt; 65 years)</td>
<td>8</td>
<td>18,2</td>
</tr>
<tr>
<td>2. Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>man</td>
<td>23</td>
<td>52,3</td>
</tr>
<tr>
<td>woman</td>
<td>21</td>
<td>47,7</td>
</tr>
<tr>
<td>3. Last education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>13</td>
<td>29,5</td>
</tr>
<tr>
<td>SMP</td>
<td>9</td>
<td>20,5</td>
</tr>
<tr>
<td>SMA</td>
<td>15</td>
<td>34,1</td>
</tr>
<tr>
<td>PT</td>
<td>7</td>
<td>15,9</td>
</tr>
<tr>
<td>4. Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNS</td>
<td>6</td>
<td>13,6</td>
</tr>
<tr>
<td>Swasta</td>
<td>2</td>
<td>4,5</td>
</tr>
<tr>
<td>IRT</td>
<td>16</td>
<td>36,4</td>
</tr>
<tr>
<td>Wiraswasta</td>
<td>20</td>
<td>45,5</td>
</tr>
<tr>
<td>5. Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Already</td>
<td>37</td>
<td>84,1</td>
</tr>
<tr>
<td>Already</td>
<td>7</td>
<td>15,9</td>
</tr>
</tbody>
</table>
Based on the results of the research in Table 1, showing that of the 44 respondents studied, the majority of respondents were at the age of 46-55 years as many as 18 people (40.9%), the majority of the sexes of respondents were men totaling 23 people (52.3%), most of the respondent's last education level was 15 people (34.1%), the majority of jobs owned by respondents were 20 people (45.5%), most of the marital status of married respondents was 37 people (84.1%), the majority of the degree of illness of respondents is class II as many as 21 people (47.7%), most of the respondents who were last treated with congestive heart failure over the past three months were 24 people (54.5%).

Table 2
**Distribution of self care maintenance on patients with congestive heart failure**

<table>
<thead>
<tr>
<th>No</th>
<th>Self care maintenance</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>25</td>
<td>56.8</td>
</tr>
<tr>
<td>2</td>
<td>Not Baik</td>
<td>19</td>
<td>43.2</td>
</tr>
</tbody>
</table>

Table 2 shows that of the 44 respondents surveyed, it was found that respondents who had self care maintenance in the good category were 25 people (56.8%).

Table 3
**Distribution of self care management on patients with congestive heart failure**

<table>
<thead>
<tr>
<th>No</th>
<th>Self care management</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>29</td>
<td>65.9</td>
</tr>
<tr>
<td>2</td>
<td>Not good</td>
<td>15</td>
<td>34.1</td>
</tr>
</tbody>
</table>

Table 3 shows that of the 44 people studied, the majority had self care management in the good category as many as 29 people (65.9%).

Table 4
**Distribution of self care confidence on patients with congestive heart failure**

<table>
<thead>
<tr>
<th>No</th>
<th>Self care confidence</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>30</td>
<td>68.2</td>
</tr>
<tr>
<td>2</td>
<td>Not good</td>
<td>14</td>
<td>31.8</td>
</tr>
</tbody>
</table>

Table 4 shows that of the 44 respondents surveyed, most of them had self care confidences in the good category as many as 30 people (68.2%).

**Discussion**
In this study, the majority of respondents were at the age of 46-55 years as many as 18 people (40.9%). Age is an important factor in self care. Increasing age is often associated with a variety of limitations or damage to sensory function that can cause a decrease in the activity of self care in patients with congestive heart failure, in addition congestive heart failure can increase with age. This is because the pathophysiological process that occurs in...
patients with congestive heart failure in the elderly, where there is continuous stimulation of the sympathetic nervous system which will increase plasma levels of norepinephrine, the pathophysiological changes have an impact on patients' self care abilities (Gallagher, Luttik, & Jaarsman). And The results of the research that have been conducted show that of the 44 respondents the majority of the education level of the respondents is high school education as many as 15 people (34.1%) that a high level of education has a relationship with self-care ability to medication adherence. The level of education greatly determines the patient's ability to understand about his health condition, while individuals who possess a low level of education will find it difficult to recognize health problems. This shows that the level of education influences a person's adherence to the management of the treatment he is undergoing.

Based on research from the three self dimensions, it was found that respondents who had self care maintenance in the good category were 25 people (56.8%), based on research from the three self dimensions, it was found that respondents who had self care maintenance in the good category were 29 people (65.9%), based on research from the three self dimensions, it was found that respondents who had self care maintenance in the good category were 29 people (65.9%), and based on research from the three self dimensions, it was found that respondents who had self care maintenance in the good category were 30 people (68.2%).so in this study the majority of respondents had good self care

Conclusion
After conducting research on "identification of self care in patients with congestive heart failure" it can be concluded that most of the respondents' ages were at age (46-55 years) as much as 40.9%, most of the respondents were male as many as 52.3%, the majority of the respondents' education levels were at the high school level amounting to 34.1%, most of the respondents' jobs were 45.5% self-employed, the marital status of the most respondents was married as much as 84.1%, most of the respondents' illnesses were class II totaling 47, 7%, and the majority of respondents who were last treated with congestive heart failure over the past three months were 24 people (54.5%). Based on the results of research conducted from the three dimensions of self care, most of them are included in the good category. The form of self care maintenance that belongs to congestive heart failure patients in the good category (56.8%), Self management in the good category (65.9%) and self care confidence in the good category (68.2%)(masukkan saran)

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THE LEVEL OF KNOWLEDGE AND ATTITUDE ABOUT HEALTH SNACKS WITH BEHAVIOR IN CHOOSING FOOT AT 4th AND 5th GRADES IN PUBLIC ELEMENTARY SCHOOL 121 PEKANBARU

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Abstract

Objective: Snacks of school children have an important role in fulfill the adequacy of energy and nutrients for the growth and development of children. The objective of this research is to know the relationship between knowledge and attitude about healthy snacks with behavior of choosing at the 4th grade and 5th grade students in public elementary school 121 Pekanbaru. Method: This research used descriptive correlational method with cross sectional approach where study independent and dependent variable are simultaneously. The Data were collected from 74 samples by distributing questionnaires using simple random sampling technique with the variables were studied knowledge about healthy snacks and attitude about healthy snacks and choosing snack behavior. Result: Most of students have good knowledge (68,9%) and have a negative attitude (55,4%) about healthy snacks and have good behavior (67,6%) in choosing snacks. Conclusions: The conclusion in this research was found that there was no correlation between knowledge about healthy snacks with the behavior of choosing snacks (p value = 1,000) and there was no relationship of attitude about healthy snacks with choosing snack behavior (p value = 0,369). It is suggested to the school, although the result of this research was no correlation, the school always need to control of all types of snacks that is sold in the school.

Keywords: Knowledge, Attitude, Behavior, Healthy Snacks, Children of School

Introduction

Food is a source of energy and various nutrients to support human life. But food can also be a vehicle for disturbing human health even can cause death. Healthy food must have nutritional value and be safe for consumed. According to the Minister of Health Regulation no. 033 of 2012, people need to be protected from the dangers of using food additives that do not meet health requirements. Food protection in case is an effort needed to prevent the possibility of contaminated food from biological, chemical and other contaminants that can cause harm and endanger human health. Lack of attention to this matter, has often resulted in the impact of a decline in the health of consumers, such as poisoning due to unhygienic storage and presentation processes (Febryanto, 2016).

One aspect that plays an important role in providing energy and nutrition as well as maintaining learning resistance for children while in school is snacks. For 6-8 hours per day the time the child spends at school and 90% of school children buy snacks at school. Snack food has good taste on the tongue, easy to get, attractive appearance and affordable price so many children like to buy snacks. However, this is inversely proportional to the quality of snacks, both in terms of the safety of the composition and the cleanliness that can endanger the health of children. The results of the initial survey in Pekanbaru 121 State Elementary School, researchers found a variety of snacks sold by vendors
or food vendors of street outside the fence. The results of observations conducted by researchers that many school-age children who snack on food vendors outside the fence, especially during breaks and when they go home from school. Although there is already a healthy canteen at the school and a ban by the school for snacks outside the school fence, there are still many students who remain snacks outside of school.

Based on the background above, the researcher was interested in conducting a research entitled "The Correlation between Knowledge & Attitudes about Healthy Snacks with Behavior in Choosing Food at 4th and 5th Grades in Public Elementary School 121 Pekanbaru".

Results

Univariate Analysis

1. Characteristics of Respondents

Table 1.1: Frequency distribution based on gender of students at 4th and 5th Grades in Public Elementary School 121 Pekanbaru

<table>
<thead>
<tr>
<th>No.</th>
<th>Gender</th>
<th>F</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>40</td>
<td>54.1</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>34</td>
<td>45.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 1.1 above showed that the majority of respondents are male as many as 40 students (54.1%).

Tabel 1.2: Frequency distribution based on pocket money of students at 4th and 5th Grades in Public Elementary School 121 Pekanbaru

<table>
<thead>
<tr>
<th>No.</th>
<th>Pocket Money</th>
<th>F</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low (&lt; Rp 6.000)</td>
<td>34</td>
<td>45.9</td>
</tr>
<tr>
<td>2</td>
<td>High (≥ Rp 6.000)</td>
<td>40</td>
<td>54.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 1.2 above shows the majority of students' high school allowance amounts to 40 respondents (54.1%).

2. Research Variables

Tabel 2.1: Frequency distribution based on knowledge about healthy snacks for 4th grade students and 5th grade of Elementary School 121 city Pekanbaru

<table>
<thead>
<tr>
<th>No.</th>
<th>Knowledge</th>
<th>F</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less</td>
<td>23</td>
<td>31.1</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
<td>51</td>
<td>68.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 2.1 above it can be concluded that the majority of respondents have good knowledge about healthy snacks as many as 51 respondents (68.9%).

Tabel 2.2: Frequency distribution based on attitudes about healthy snacks at 4th and 5th Grades in Public Elementary School 121 Pekanbaru

<table>
<thead>
<tr>
<th>No.</th>
<th>Attitude</th>
<th>F</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Negative</td>
<td>41</td>
<td>55.4</td>
</tr>
<tr>
<td>2</td>
<td>Positive</td>
<td>33</td>
<td>44.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 2.2 above it can be concluded that the majority of respondents have a negative attitude about healthy snacks as many as 41 respondents (55.4%).

Tabel 2.3: Frequency distribution based on behavior about healthy snacks at 4th and 5th Grades in Public Elementary School 121 Pekanbaru

<table>
<thead>
<tr>
<th>No.</th>
<th>Behavior</th>
<th>F</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less</td>
<td>24</td>
<td>32.4</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
<td>50</td>
<td>67.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 2.3 above, it can be concluded that the majority of respondents have good behavior in choosing snacks, as many as 50 respondents (67.6%)
Bivariate Analysis

1. **Correlation between Knowledge about Healthy Snacks with Behavior in Choosing Food**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Behavior in Choosing Food</th>
<th>Total</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less</td>
<td>Good</td>
<td>N</td>
</tr>
<tr>
<td>Less</td>
<td>7</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Good</td>
<td>17</td>
<td>34</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>50</td>
<td>74</td>
</tr>
</tbody>
</table>

The results of chi square statistical tests obtained p value of 1,000. The results of this study have a value of α> 0.05 so that Ho was accepted, it is concluded that there was no correlation between knowledge about healthy snacks and behavior in choosing food.

2. **Correlation between Attitudes about Healthy Snacks with Behavior in Choosing Food**

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Behavior in Choosing Food</th>
<th>Total</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less</td>
<td>Good</td>
<td>N</td>
</tr>
<tr>
<td>Negative</td>
<td>11</td>
<td>30</td>
<td>41</td>
</tr>
<tr>
<td>Positive</td>
<td>13</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>50</td>
<td>74</td>
</tr>
</tbody>
</table>

The results of this study have a value of α> 0.05 so that Ho was accepted, it is concluded that there was no relationship between attitudes about healthy snacks and behavior in choosing food.

**Discussion**

**Univariate Analysis**

1. **Characteristics of Respondents**

In this study it was found that the most respondents were 40 respondents of male (54.1%) because in each at 4th grade and 5th grade male students were more. According to Utami and Waladan's (2017) research, boys are more active in physical activities and sports, activities that cause boys to need a lot of energy. This energy is obtained by children from snacks purchased at school (Utami & Waladan, 2017).

Characteristics of respondents based on pocket money are known that most of the students are more than Rp. 6,000 as many as 40 students (54.1%). The provision of pocket money gives influence to the child to be responsible and learn to manage the pocket money he has. Reasons that cause children to consume snacks more and more often are increasing the provision of snacks (Widyoningsih, Subakti, & Ahmad, 2016).

2. **Knowledge of Healthy Snacks**

The majority of respondents are well informed about healthy snacks. This can be caused by the knowledge of snacks that have been delivered by the teacher in the elementary school. Children's knowledge can be obtained both internally and externally. Internal knowledge is knowledge that comes from itself based on the child's life experience. Externally knowledge is knowledge gained from
other people including family, parents, and teachers. Knowledge gained both internally and externally will increase children's knowledge about healthy snacks (Purtiantini, 2010).

3. Attitudes Regarding Healthy Snacks

The majority of respondents have a negative attitude about healthy snacks. This is because children are affected by friends who have a positive attitude towards snacks. A person's attitude will affect his knowledge. Attitudes can describe the reflection of a person's feelings in the form of positive and negative values on a particular object, where the attitude affects the actions of a person to achieve his goals (Wawan & Dewi, 201).

4. Behavioral in Choosing Food

The majority of respondents have good behavior in choosing food. This can be caused because the child's behavior is not spared from the attitude and knowledge he has. Food habits are part of the behavior in the form of real actions that become a pattern of behavior that tends to be difficult to change. School-age children have the habit of buying food they like. Children have a changing nature of food so that often children choose the wrong snacks especially if not guided by their parents (Utami & Waladan, 2017).

5. Correlation between Knowledge about Healthy Snacks with Behavior in Choosing Food

Based on the results of the research conducted showed there was no correlation between knowledge about healthy snacks and behavior in choosing food. Good knowledge does not necessarily guarantee that the child behaves well. Many things affect children in behaving. This is due to the child's knowledge factor. In general, the knowledge gained by children is limited to the basic knowledge of the school. Children only get knowledge about the function of food, nutritional elements of food, and washing their hands before eating, while as a result of consuming unhealthy snacks, consuming food that is not safe, does not have sufficient nutritional value, consuming snacks containing preservatives, flavorings excess and artificial sweeteners are not too emphasized, children only think that the snacks they eat can eliminate hunger so that in choosing snacks the child does not pay attention to the nutritional value found in the snack (Safriana, 2012).

School-age children have a high curiosity, especially in snacks, of course with curious, they always want to try snacks sold in the school environment without regarded to the nutritional content and the dangers of current snacks (Syaodih, 2015).

6. Correlation between Attitudes about Healthy Snacks with Behavior in Choosing Food

Based on the results of the research, it was shown that there was no correlation between attitudes about healthy snacks and snacking behavior. Child behavior does not escape his attitude and knowledge. The results of research conducted show that the attitude of more negative children behaves well. This is because children who have a negative attitude are influenced by the environment, especially their peers. His attitude is positive in choosing snacks and arises the desire to taste the food eaten by his friend. The behavior that arises is imitating a friend even though it is not in accordance with the attitude he has. This is in accordance with the characteristics of primary school children who like to imitate people around them including parents, teachers and peers.

Conclusion

The level of children's knowledge about healthy snacks, the majority of children have good knowledge that is equal to 68.9%. The child's attitude about healthy snacks, the majority of children have a negative attitude that is equal to
55.4%. As for the behavior of children in choosing food, the majority of children have good behavior which is 67.6%. The results of the chi square statistical test showed that there was no correlation between knowledge about healthy snacks and behavior in choosing food, with the acquisition of 1,000 p values. Furthermore, the results of the chi square statistical test showed that there was no relationship between attitudes about healthy snacks and behavior in choosing food with the acquisition of p value 0.369.

Acknowledgements
The researcher expressed their gratitude to Public Elementary School 121 Pekanbaru who gave permission to the researcher to conduct research and thank you for students at 4th and 5th Grades in Public Elementary School 121 Pekanbaru who had been willing to become respondents in this study.

References


THE ASSOCIATION BETWEEN PEER CONFORMITY WITH DEVIANT BEHAVIOR IN ADOLESCENTS

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Abstract

Objective: Adolescence is a very critical period in human development stage, where multi dimension change happens such as biologic, cognitive, psychological and social change. Many changes in this period make adolescent find more problems that could be a kind of deviant behavior. Method: The design of this research was descriptive correlation using cross sectional approach. The sample of this research was 201 students of SMP N 15 Pekanbaru using stratified random sampling technique. The instrument used was a questionnaire that has been tested for validity and reliability. Result: The result of chi-square test showed p value (0,000 and 0,041) < α (0,05) for light deviant behavior and medium deviant behavior. It can be conclude there were significant relationships between peer conformity with deviant behavior. Conclusions: This research statically showed there is a significant impact of peer conformity in adolescent. School has to warn and give educated punishment to student and also strengthen Counseling teacher participation, so it will decrease the risk of deviant behavior in adolescent.

Keywords: Adolescent, deviant behavior, peer conformity

Introduction

Adolescence is a very critical period in human development stage, where multi dimension change happens such as biologic, cognitive, psychological and social change (Choudhary, 2014). According to WHO (2014) the number of adolescents in the world is estimated at 1.2 billion or 18% of the world population. The large number of adolescents and the many changes in adolescence cause crises and problems that lead to deviant behavior in adolescents.

Deviant behavior in adolescents is also called juvenile delinquency. Deviant behavior is a social problem that occurs because there are behavioral deviations and various social rules or from social values and norms that apply and are expressed by one or more members of the community, both consciously and unconsciously (Kartono, 2010).

Deviant behavior in adolescents includes fighting, skipping school, lying, wandering, reading or seeing books and films that contain pornographic elements, riding a motorbike without a license, speeding on the road, picking up parental goods without permission, stealing, damaging school or public facilities, using drugs, drinking alcoholic beverages, having sex out of marriage, doing abortion, raping, and gambling (Mubarak, 2009).

Deviant behavior in adolescents is influenced by various factors, one of them is peer conformity (Saputro & Soeharto, 2012; Rebellow, 2015; Nkhata & Mwale, 2016). Peer conformity factors can influence deviant behavior in adolescents which can shape the behavior of adolescents to be naughty because teenagers get strong pressures from peers so that adolescents are conformed to the
social behavior that exists in the group (Santrock, 2003).

According to Saputro and Suharto (2012), data were obtained that peer conformity had a relationship with delinquency tendencies in adolescents.

The purpose of this study was to determine the relationship of peer conformity with deviant behavior of adolescents.

The results of this study are expected to add insight and knowledge especially on peer conformity, and adolescent deviant behavior.

Method

This research was took place in SMP N 15 Pekanbaru that starting from February to July 2018. This study used a descriptive correlation design with cross sectional approach.

The population in this study were students of class VII and VIII SMP N 15 Pekanbaru, the populations is 406 students. The sample in this study was 201 students based on inclusion criteria. Samples were taken by stratified random sampling.

The data were collected using the adopted, valid and reliable peer conformity and deviant behavior questionnaires. Data were analyzed using univariate and bivariate analysis. Univariate analysis describes the characteristics of respondents related to gender, age, education level of parents, work of parents, parents’ income, and number of family members. Bivariate analysis is used to determine whether there is a significant relationship between the independent and dependent variables using the chi-square test.

Results

3. Univariate Analysis

Table 1 shows that the respondents who have high peer conformity were 102 people (50.7%).

Table 2

Frequency Distribution of Respondents based on Light Deviant Behavior (N=201)

<table>
<thead>
<tr>
<th>No.</th>
<th>Peer Conformity</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High</td>
<td>102</td>
<td>50.7</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>99</td>
<td>49.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>201</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 2 shows that the highest respondents who do light deviant behavior were 128 people (63.7%).

Table 3

Frequency Distribution of Respondents based on Medium Deviant Behavior (N=201)

<table>
<thead>
<tr>
<th>No.</th>
<th>Medium Deviant Behavior</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do</td>
<td>103</td>
<td>51.2</td>
</tr>
<tr>
<td>2</td>
<td>Do not</td>
<td>98</td>
<td>48.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>201</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 3 shows that the highest respondents who do medium deviant behavior were 103 people (51.2%).

Table 4

Frequency Distribution of Respondents based on Heavy Deviant Behavior (N=201)

<table>
<thead>
<tr>
<th>No.</th>
<th>Light Deviant Behavior</th>
<th>Number (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do</td>
<td>113</td>
<td>56.2</td>
</tr>
<tr>
<td>2</td>
<td>Do not</td>
<td>88</td>
<td>43.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>201</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4 shows that the highest respondents who do heavy deviant behavior were 113 people (56.2%).
4. Bivariate Analysis

Table 5
Relationship Between Peer Conformity and Deviant Behavior in Adolescents (N = 201)

<table>
<thead>
<tr>
<th>No.</th>
<th>Social Support Family</th>
<th>Aggressive behavior</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>1.</td>
<td>Light</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>a.</td>
<td>Do</td>
<td>78</td>
<td>50</td>
</tr>
<tr>
<td>b.</td>
<td>Not do</td>
<td>24</td>
<td>49</td>
</tr>
<tr>
<td>2.</td>
<td>Medium</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>a.</td>
<td>Do</td>
<td>60</td>
<td>43</td>
</tr>
<tr>
<td>b.</td>
<td>Not do</td>
<td>42</td>
<td>56</td>
</tr>
<tr>
<td>3.</td>
<td>Heavy</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>a.</td>
<td>Do</td>
<td>64</td>
<td>49</td>
</tr>
<tr>
<td>b.</td>
<td>Not do</td>
<td>38</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Table 5 shows the results of the chi-square statistical test showed that the value of P value = 0.000, 0.041 < α = (0.05), it can be concluded that there is a significant relationship between peer conformity with light and medium deviant behavior.

Discussion

a. Characteristics of Peer Conformity

The results of the study on 201 students found that respondents who had peer conformity in high category were 102 people (50.7%). At the stage of adolescent development, adolescents really need peers. Teenagers become very dependent on their friends as a source of pleasure and have a strong attachment to their peers. The tendency of attachments in these groups increases with the frequency of interactions among its members, followed by conformity behavior, where adolescents will try to adjust and unite with the group so that they can be accepted by the group (Soetjiningsih, 2010).

Peer conformity has a strong effect on adolescent behavior that can influence deviant behavior because adolescents get strong pressures from peers to be conformed to social behavior in the group (Santrock, 2003).

The results of research conducted by Nkhata and Mwale (2016) state that peer pressure is one of the factors that contribute to deviant behavior in adolescents. Many teens engage in deviant behavior because teens see their friends doing the same thing. This result is in line with research conducted by Rebellows (2015) that adolescents adapt their friends’ behavior so that it can be accepted in groups even though it can cause harm to themselves and others.

b. Characteristics of Deviant Behavior in Adolescents

The results of the study on 201 students found that the most deviant behavior was carried out by light deviant behavior as many as 128 people (63.7%). The results showed that many deviant behaviors carried out by respondents were disturbing the opposite sex and against parents for the category of light deviant behavior, wandering and seeing images/videos containing pornographic elements for the category of medium deviant behavior, and fighting and damaging other people’s or public facilities for the heavy deviant behavior category. The deviant behavior mostly carried out by respondents was influenced by the characteristics of respondents who attend school, where students who have low grades often go to school, and the school is known as a school that has high juvenile delinquency. Characteristics of adolescents who tend to follow peer behavior contribute to deviant behavior that occurs in the school.

c. Relationship between Peer Conformity and Deviant Behavior

The statistical test results obtained p-value < α = (0.05) for the relationship of peer conformity to light and medium deviant behavior, and p-value > α = (0.05) for heavy deviant behavior. This shows that there is a significant relationship between peer conformity with light and
medium deviant behavior, and there is no significant relationship between peer conformity and heavy deviant behavior.

The theory put forward by Santrock (2003) states that peer conformity has a strong effect on adolescent behavior that can influence deviant behavior because adolescents get strong pressures from peers to be conformed to social behavior in the group. This theory is in line with the results of research conducted by Nkhata and Mwale (2016) that peer pressure is one of the factors that contribute to deviant behavior in adolescents. Many teens engage in deviant behavior because teens see their friends doing the same thing. The results of research conducted by Rebellow (2016) also stated that adolescents adapted their friends’ behavior so that they could be accepted in groups even though it could cause harm to themselves and others.

Conclusions
The results showed that more respondents have high peer conformity of 102 people (50,7%), 128 respondents (63,7%) do light deviant behavior, 103 respondents (51,2%) do medium deviant behavior, and 113 respondents (56,2%) do heavy deviant behavior. Based on the results of statistical tests it can be concluded that there is a significant relationship between peer conformity with light deviant behavior (p value = 0,000) and medium deviant behavior (p value = 0.041), there is no significant relationship between peer conformity and heavy deviant behavior.

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References

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Jakarta: CV. Sagung Seto.

INFLUENCE ABDOMINAL STRETCHING EXERCISE AGAINST INTENSITY OF DYSMENORRHOE

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Abstract

Objective: This study was aimed to determine the influence of abdominal stretching exercise against intensity of dysmenorrhoe. Method: The design of this research study was "Quasi experimental" using "Non-equivalent control group" which is divided into an experimental group and a control group. The study was conducted on student Daarun Nahdah boarding school. Total sample was 34 female students who fit the inclusion criteria and using simple purposive sampling technique. Measuring instruments are used sheets observation numeric rating scale. The analysis used univariate and bivariate analysis using independent sample T-test and dependent sample t test. Results: The results was showed a decrease in the intensity of dysmenorrhoe in the experimental group after given abdominal stretching exercise with p value (0.000) <α (0.05). Conclusions: This means that abdominal stretching exercise was effective to reduce the intensity of dysmenorrhoe. Abdominal stretching exercise can reduce dysmenorrhe in non-pharmacological which can be practiced independently, so it was suggested to students who have other family members or neighbors can use complementary therapies to reduce pain intensity of dysmenorrhoe.

Keywords: abdominal stretching exercise, dysmenorrhoe, menstruation

Introduction

Adolescence is the transition period between childhood and adulthood (Hockenberry & Wilson, 2011). Teenagers will experience puberty, which is a period where a person experiences physical changes, hormonal and sexual as well as the ability to conduct reproductive processes (Mansur, 2009).

Dysmenorrhea occurs as a result from uncoordinated uterus contractions that caused by an increased production of prostaglandins which are released into the blood circulation (Mitayani, 2011). Dysmenorrhea is classified as primary or secondary based on the absence or presence of an underlying cause (Nugroho & Utama, 2014).

The prevalence of dysmenorrhea varies widely across the world with an average of more than 50 percent of women in each country. Around 60% of dysmenorrhea occurrence in the United States and 72% in Sweden (Marlinda, 2012). While percentage figure in Indonesia is still unknown.

According to Anwar, Baziad, & Prabowo (2008), primary dysmenorrhea can be resolve with pharmacological and non-pharmacological treatment. Pharmacology therapy for dysmenorrhea can be done by giving analgesics drugs, while non-pharmacological therapy can be done with the relaxation techniques, warm water compresses, acupuncture, herbal drinks consumption, and regular exercise or any physical activity.

An interview was taken with several students where 7 out of 10 students stated that they lack the urge to find out methods to overcome the pain and would choose to take a painkiller or suppress the pain. None
of the students has ever considered physical exercise as one of the solutions to relieve pain. This matter concerns the urgency of this research where it is known that pharmacology treatment has a negative impact and a low-risk method is needed, which is why non-pharmacological treatment is a suitable solution. Abdominal stretching processes is one of the non-pharmacological therapy to reduce pain, and it is necessary to study the effect on the intensity of Dysmenorrhea.

**Method**

The type of research design used in this research is a Quasi-Experiment with the research design of Non-Equivalent Control Group, which is a research design where researchers did not randomize the grouping between the experimental group and the control groups. This research involved two groups namely the experimental group and the control groups (Hidayat, 2011).

The research location was at Daarun Nahdhah Islamic Boarding School of Bangkinang with respondents from class X and class XI due to the majority of their students were women. Non-probability sampling with the type of purposive sampling is used as the sampling technique of this research.

The number of samples in this research was 34 students and all samples were part of Daarun Nahdhah Islamic Boarding School of Bangkinang from class X and class XI. The researcher used an observation sheet to collect menstrual pain data which contain demographic data of the respondents and the Numeric Rating Scale (NRS) pain intensity scale.

In this research, the Independent Sample T-Test was used to compare post-test of pain assessment on both experimental group and control group, while Dependent Sample T-Test was used to compare pre-test and post-test of pain assessment on both groups. The degree of statistical significance (α) used in this test is 0.05. If the statistical tests obtained where ρ value < α (0.05), then it is proven that abdominal stretching exercises are effective on decreasing the intensity of Dysmenorrhea.

**Results**

The research results obtained as follows:

1. **Univariate Analysis**

   The Characteristics of Respondents Based on Age and Menarche

   Based on table 1, it is concluded that out of 34 respondents, the highest distribution of respondents according to the age was 52.9% at the age of 16. Based on the age of menarche it highest collected data was at the age of 12 years which was 38.2%.

2. **Bivariate Analysis**

   Based on table 1, an average value of the intensity of Dysmenorrhea on the experimental group before being given abdominal stretching exercise is 6.47 with a standard deviation of 1.179. After being given abdominal stretching exercise, the average value decline to 3.82 with a standard deviation of 1.237. The results of the analysis obtained a p-value (0.000) < α (0.05), therefore it can be concluded that there are differences in the intensity of Dysmenorrhea before and after being given abdominal stretching exercise in the experimental group.

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Mean</th>
<th>Mean difference</th>
<th>SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Intervention</td>
<td>1</td>
<td>6.47</td>
<td>2.64</td>
<td>1.179</td>
<td>0.000</td>
</tr>
<tr>
<td>After Intervention</td>
<td>1</td>
<td>3.82</td>
<td>1.237</td>
<td>0.025</td>
<td></td>
</tr>
</tbody>
</table>
Based on table 2, there were differences in the intensity of Dysmenorrhea before and after the abdominal stretching exercise in the control group. There were 5 respondents experienced an increase in Dysmenorrhea intensity, while 12 respondents did not experience any changes in the intensity of Dysmenorrhea. The results of the analysis obtained where p-value $(0.025) < \alpha (0.05)$, therefore the Ho was denied, it can be concluded that there was a difference between the average value of Dysmenorrhea intensity on before and after without being given abdominal stretching exercises in the control group.

**Table 3**

*Dysmenorrhea Intensity Comparison in The Experimental Group and Control Group*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mann Whitney U</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>17</td>
<td>10.500</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on table 3 statistical test, the value of Mann Whitney U post-test assessment in the experimental group and control group is 10,500 with the p-value $(0.000) < \alpha (0.05)$. This can be concluded that abdominal stretching exercises present an effective way of reducing Dysmenorrhea intensity.

**Discussion**

1. **Respondents Characteristics**

The results of the research that has been conducted on Daarun Nahdalah Islamic Boarding School of Bangkinang are that the highest respondents were at the age of 16 years (52.9%). The results of this research are consistent with the research Arifianti (2016) and Utami (2014) where most respondents are aged 16 years. This result states that the majority of respondents are within the range of the middle adolescence, aged 15-17 years.

The results of this research showed that the highest age of menarche was found at the age of 12 years, around 13 respondents (38.2%). The result of this research shares similar results conducted by Utami (2014) where the highest age of menarche was at the age of 12 years.

One of the risk factors of Dysmenorrhea is those who experience menarche earlier. This is related to endometrial prostaglandins and leukotrienes. After ovulation occurs in response to an increased level of progesterone, fatty acids will increase in phospholipids of the cell membrane. Arachidonic acids and other omega-7 fatty acids are released and initiate a flow mechanism for prostaglandins and leukotrienes in the uterus, as a result, it gives a mediated effect of the inflammatory response and creates a tension during menstruation (Novita, 2015).

2. **Pain Intensity**

Based on the research results, the average value of Dysmenorrhea intensity before being given intervention in the experimental group is 6.47 points and after being given intervention is 3.82. For the control group, the average intensity of Dysmenorrhea before intervention is 6.65 and after the intervention is 6.94. The average Dysmenorrhea intensity on the experimental group decreased by 2.64 points. While the average Dysmenorrhea intensity on the control group has increased by -0.29 points which happen because the pain felt by the respondents would appear and disappear periodically.

Dysmenorrhea tends to increase in women who exercise less. When a woman experiences Dysmenorrhea, vasoconstriction takes place and the oxygen cannot be channeled into the blood vessels of the reproductive organs. A different case on women who exercise regularly where exercises supply a doubled amount of oxygen every minute so that oxygen is
delivered to the blood vessels that sustained vasoconstriction (Anisa, 2015).

3. The Influence of Abdominal Stretching Exercise towards Dysmenorrhea Intensity

Based on the results of the study, there was a significant difference in the mean intensity of dysmenorrhea before and after the intervention of the abdominal stretching exercise in the experimental group with p-value 0.000. This suggests that abdominal stretching exercise are effective in reducing the intensity of Dysmenorrhea. Abdominal stretching exercise is stretching exercise that focuses on the abdominal muscles and exercise is one of the non-pharmacological treatment that is safer to use because it uses physiological processes (Anisa, 2015).

According to Putra (2012) in Fauziah (2015) the benefits of stretching increases an athlete's physical fitness, optimizes responsiveness, improves mental and physical health, increases body awareness, reduces the risk of joint sprains and muscle injury (cramps), reduces the risk of back injury, reduces muscle pain and muscle tension and reduces menstrual pain (Dysmenorrhea) for women.

Abdominal stretching exercise itself is not much different from gymnastics, which can help increase oxygenation and cell’s carbohydrates and also stimulate the lymphatic drainage system flow, so that it can increase muscle flexibility by restoring the muscles to their natural length and maintain their function properly to reduce cramps in the muscles (Ningsih, 2011).

Conclusion

The results showed that the age of most respondents was 16 years old (52.9%) and the most menarche was 12 years old (38.2%). The provision of abdominal stretching exercise in the experimental group can reduce the intensity of Dysmenorrhea in which the Wilcoxon Test showed no significance with p-value (0.025) < α (0.05), while post-test assessment of Mann-Whitney Test results obtained Mann Whitney U in the experimental group and the control group as much as 10,500 with p-value (0.000) < α (0.05). This means that there is a significant difference in the reduction of Dysmenorrhea intensity between the experimental group and the control group, and it can be concluded that abdominal stretching exercise is effective in reducing the intensity of Dysmenorrhea.

Acknowledgements

Deepest thank you for the assistance and guidance from various parties in the completion of this research report.

1. Annisa Syafna: Nursing Faculty student at the University of Riau, Indonesia.
2. Ns. Yulia Irvani Dewi, M.Kep., Sp. Mat: Lecturer at the Department of Maternity Nursing, Faculty of Nursing, University of Riau, Indonesia.
3. Siti Rahmalia Hairani Damanik, MNS: Lecturer in Medical Nursing, Faculty of Nursing, University of Riau, Indonesia.

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LIST OF POSTER PRESENTATION
COMPONENT OF ADOLESCENT SELF-CONCEPT IN ISLAMIC BOARDING SCHOOL

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³ Lecturer Faculty of Nursing University of Riau

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Abstract

Objective: This study aims to explore the component of adolescent self-concept in Islamic Boarding School. Method: This research uses a descriptive method. This research were using 135 adolescents for samples, based on inclusive criteria using stratified random sampling method. This research was located in SMA Babussalam Pekanbaru. This research were using 40 questionnaires that have been tested by using validity test and reability test. This research were using univariat analyze to explain the frequency table. Result: The final result of this research showed that the samples tend to be positive than negative, 69 adolescent (51.1%) have positive self-concept and 66 adolescent (48.9%) have negative self-concept. Conclusion: Based on the result of this study, it is suggested to Islamic Boarding School to maintain and developing mentality program, that adolescent tend to have a positive effect for self-concept.

Keywords: Adolescent, Islamic Boarding School, self-concept

Introduction

Adolescence is a time of transition from the child toward adulthood is accompanied by the development of all aspects or functions to enter adulthood (Adriani & Wirjatmadi, 2012). Adolescence a time considered to be labile, where individuals trying to find his true identity in the middle of his fellow teens. Teens experience changes both physically, emotional, social, intellectual, or psikoseksual about her experience. Such changes require teens to make adjustments against himself as well as his social environment (Aristya & Rahayu, 2018).

The social environment is first and foremost for children is the family environment (Wahyuni, 2012). The family has a very important role in the education of children. Parents are responsible for family life and provide the right direction i.e. by imparting religious teachings and akhlakul karimah. The modern era, many parents who worry about the future of his son. That is because more and more the case of criminality, increasing student fights, drug abuse and drink-liquor, etc. The various problems experienced by youth, many parents who think repeated about the effectiveness of public education in developing personality and morals of children, so parents choose boarding schools as a means of moral construction of the Cubs (Hidayatulloh, 2016). Boarding schools is one of the educational path that has the specificity in the running pattern of education, that is, students are placed in a boarding house under the guidance of kyai or ustad responsible for education and daily according to the Novianti (2006, in Nisak, 2017).

Life in boarding schools is very different from life at home, students here must conform in order to be completed his education in boarding schools. Students work in one full day on the schedule...
specified (Aqilah, 2015). Students must also obey all rules set by the boarding schools, when students violate the rules that are in boarding schools will be punished in accordance with the violations that he did (Hidayatullloh, 2016). Regulations on boarding schools such as should not carry handphone, boarding out should only be done when the holidays and parent, it is prohibited to meet with the opposite sex and a variety of other regulations which are not given to adolescents at General (Aqilah, 2015). Students to have obedience, endurance and ability accept rules in self concept required to behave (Sani & Frieda, 2015).

The concept of the self is not heredity factors, but factors that are studied and are formed through the experience of the individual's relationship with others. Each individual will have a concept of self that positive or negative with varying intensity. Someone has a positive self concept, then someone will have more confidence that able to perform certain tasks so that pushed him to achieve success, while someone who has negative self concepts tend to have expectations the success of his efforts against low (Wahyun, 2012).

A wide range of research on teen self concept in boarding schools has been carried out. One research Sani and Frieda (2015) about the relationship between the concept of self and decision making become Modern in santri Assalam Temanggung pointed out that the concept of the self which is owned by the students are on a positive category (p value = 0.000). Students have a positive self concept due to feeling brave and capable, to make students be optimistic against what will be chosen. Feelings about their ability to adapt to the environment also raises self confidence in students that he definitely succeeded in doing a task in boarding schools. A positive view of the quality of the skills possessed by the students, so they will not feel the stress of dealing with a problem (Sani & Frieda, 2015).

Method
This research was carried out in high school Babussalam Soweto which began from February to July 2018. This study uses design research of the population of this research are the students of class X and XI Babussalam High School in Pekanbaru. Sampling using stratified random sampling with inclusion criteria, namely the students of class X and XI, aged 15-17 years, and are willing to be the respondent.

Data collection tools used in this study is a questionnaire. A questionnaire contains questions related to the characteristics of the youth. Questionnaire B contains 40 questions to measure the concept of self. Researchers using instruments developed by William H. Fitts (1965), namely Tennessee Self Concept Scale, an instrument that can be used to measure the concept of self with the scale likert. These instruments amounted to 40 questions were modified, consists of 20 positive questions and 20 negative questions.

Result

<table>
<thead>
<tr>
<th>The Distribution Of Respondents According To The Description Of Yourself</th>
<th>No</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive self image</td>
<td>68</td>
<td>50,4</td>
</tr>
<tr>
<td>2</td>
<td>Negative self image</td>
<td>67</td>
<td>49,6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Distribution Of Respondents According To Their Ideal Self</th>
<th>No</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive self ideal</td>
<td>78</td>
<td>57,8</td>
</tr>
<tr>
<td>2</td>
<td>Positive self</td>
<td>57</td>
<td>42,2</td>
</tr>
</tbody>
</table>
ideal

Tabel 3
The Distribution Of Respondents According To Self-esteem

<table>
<thead>
<tr>
<th>No</th>
<th>Self esteem of adolescent</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive self esteem</td>
<td>78</td>
<td>57.8</td>
</tr>
<tr>
<td>2</td>
<td>Negative self esteem</td>
<td>57</td>
<td>42.2</td>
</tr>
</tbody>
</table>

Tabel 4
The Distribution Of Respondents According To The Appearance On The Role

<table>
<thead>
<tr>
<th>No</th>
<th>The appearance of adolescent roles</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The appearance of a positive role</td>
<td>80</td>
<td>59.3</td>
</tr>
<tr>
<td>2</td>
<td>The appearance of a negative role</td>
<td>55</td>
<td>40.7</td>
</tr>
</tbody>
</table>

Tabel 5
The Distribution Of Respondents According To The Identity

<table>
<thead>
<tr>
<th>No</th>
<th>Self identity of adolescent</th>
<th>Total (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive self identity</td>
<td>68</td>
<td>50.4</td>
</tr>
<tr>
<td>2</td>
<td>Negative self identity</td>
<td>67</td>
<td>49.6</td>
</tr>
</tbody>
</table>

Discussion

1. Description of yourself
   The results showed that adolescent in boarding schools has a picture of an almost balanced between self image of themselves positive and negative self-imagery. Adolescents with a positive self image is 68 of respondents (50.4 %) and youth with negative self-imagery namely 67 respondents (49.6%). Adolescents who have a positive image of themselves they want to receive physical state owned. Adolescents who have a negative image of themselves because of the feeling that considers the physical condition they are now if not yet as they expect. Negative self picture would also affect the self esteem of teens, teens will feel anxious due to physical conditions that are not yet as they had hoped.

2. Description of ideal self
   The results showed that most adolescents have positive self ideal, i.e. as many as 78 people respondents (57.8%). Adolescents who have a positive self ideal feel able to do things that are considered in accordance with the standards of conduct, has high expectations of himself, has a realistic perception of the appropriate, don't worry to condition himself, as well as having a realistic self ideal.

3. Description of self-esteem
   The results showed that most adolescents have positive self-esteem, that as many as 78 people respondents (57.8%). Adolescents who have positive self-esteem has the appropriate feeling of precious, loving himself, capable of doing your job well and true, able to interact with the people around her, always abiding by the rules that apply, receive his mistakes without hurting myself, and not easy to run away from the problems that exist.

4. Description of the role of appearance
   The results showed that most of the adolescents has the appearance of a positive role, that as many as 80 people respondents (59.3%). Adolescents who have the appearance of a positive role is able to show his ability, was able to account for his actions, being able to perform its role as expected either at
school, the family, as well as the environment.

5. Descriptions of identity

The results showed that adolescents in boarding schools has an identity that is nearly balanced between positive self identity and the identity of the negative self-talk. Adolescents with positive self identity is 68 of respondents (50.4 %) and youth with negative self identity is the 67 respondents (49.6%). Adolescents who have a positive self-identity knowing who feel themselves, the extent of its ability, how themselves, admit to their sex, and being able to socialize properly. Adolescents who have a negative identity do not know and have not been able to develop its ability as well as feel haven’t been able to socialize properly.

Conclusions

Based on the results of research that has been done about the description of the components of the self-concept adolescent in boarding schools that are made against respondent a class person 135 X and XI Babussalam High School in PekanbaruS can be summed up as follows, research results related teen self picture shows almost balanced between self picture positive and negative self-imagery that is as many as 68 people (50.4%) respondents to picture ourselves positive and 67 people respondents (49.6%) for the description of negative self-talk. The ideal associated himself, most adolescents have a positive self ideal, many as 78 people respondents (57.8%) and many as 57 people respondents (42.2%) have an ideal negative self. Associated price himself, most adolescents have positive self-esteem, that many as 78 people respondents (57.8%) and many as 57 people respondents (42.2%) have negative self-esteem. While her appearance-related, most teens have the appearance of a positive self, that as many as 80 people respondents (59.3%) and many as 55 people (40.7%) of respondents have a negative self appearance. As for the identity of the respondents have an almost balanced identity identity between positive and negative identity, many as 68 people (50.4%) of respondents have a positive self-identity and 67 people (49.6%) respondents have negative self-identity.

Acknowledgements

 Infinite thanks for the help and guidance of the various parties in the completion of this research report.

References


THE CORRELATION OF BREASTFEEDING PATTERN WITH THE DEVELOPMENT OF INFANTS AGED 6–12 MONTHS

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Abstract

Objective: Breastfeeding is one of the first early childhood development interventions, in order to prepare children for a prosperous future. This research aimed to determine the relationship between breastfeeding patterns with infants aged 6-12 months development at Payung Sekaki Health Center area, Pekanbaru City. Methods: A cross-sectional correlation research design was used for this study. Purposive sampling techniques were used to a total of 85 mothers with 6-12-month-old infant. Questionnaire and a sheet of the Denver Development Screening Test (DDST) are used as child developmental assessment. Results: Univariate and bivariate analysis with chi-square test showed that 48.2% infants were partially breastfed and 63.5% had a normal development. The results of bivariate analysis showed that the majority of infants with normal development had an exclusive breastfeeding pattern (85.0%) and predominantly breastfed babies are up to 83.3% with p value (0.000) < α (0.05). Conclusions: There is a connection between breastfeeding pattern and the development of infants aged 6-12 months.

Keywords: Breastfeeding Pattern, DDST, Infant Development.

Introduction

A non-optimal exclusive breastfeeding can be a threat to children's growth and development. WHO (2016) reported that around 200 million children were failed to achieve their full physical, mental and social potential because of negative factors that inhibit early childhood development, amongst them, not being breastfeed. The first days of life is very important because it determines further development (Soetjiningsih & Ranuh, 2016).

The Indonesia Ministry of Health (2014) classifies breastfeeding patterns into three categories, namely exclusive, predominant and partial. Exclusive breastfeeding is defined as no other food or drink, not even water, except breast milk for 6 months of life, but allows the infant to receive vitamins, minerals and medicines. The predominant is a pattern by giving a little water or water-based drinks to infants aged <6 months. While the partial is breastfeeding with additional foods including formula milk to infants aged <6 months. WHO (2016) recommend to give an early initiation of breastfeeding within 1 hour of birth and exclusive breastfeeding for the first 6 months of life.

The purpose of this study was to determine the relationship between breastfeeding patterns with infants aged 6-12 months development.

Method

The design of this research was descriptive correlation using a cross-sectional approach. Respondents were 85 mothers who had infants aged 6-12 months, who were taken by purposive sampling technique.

Data collection tools in this study were questionnaires and Denver Development Screening Test.
Screening Test (DDST) sheets to assess infant development. The data was analyzing by univariate and bivariate with chi-square test.

**Result**

1. **Characteristics Of Respondents**

   **Tabel 1**
   
   **Distribution of Respondents’s Characteristics (n=85)**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total</th>
<th>Percent age (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Infant Age (Month)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>22</td>
<td>25,</td>
</tr>
<tr>
<td>7</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>22,</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>13</td>
<td>14,</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>9,4</td>
</tr>
<tr>
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<td>15,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5,9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7,1</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>43</td>
<td>50,6</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>49,4</td>
</tr>
<tr>
<td>2. Respondents’s Mother Age (Year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 – 25</td>
<td>29</td>
<td>34,</td>
</tr>
<tr>
<td>26 – 35</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>36 – 45</td>
<td>6</td>
<td>58,</td>
</tr>
<tr>
<td></td>
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<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7,1</td>
</tr>
<tr>
<td>Type of Childbirth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normally</td>
<td>61</td>
<td>71,8</td>
</tr>
<tr>
<td>Cesarean</td>
<td>24</td>
<td>28,2</td>
</tr>
</tbody>
</table>

**Breastfeeding Pattern of Infant**

**Tabel 2**

**Distribution of Infant’s Breastfeeding Pattern (n = 85)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusive</td>
<td>20</td>
<td>23,5</td>
</tr>
<tr>
<td>Predominant</td>
<td>24</td>
<td>28,2</td>
</tr>
<tr>
<td>Partial</td>
<td>41</td>
<td>48,2</td>
</tr>
</tbody>
</table>

**3. Development of Infant**

**Tabel 3**

**Distribution of Infant’s Development (n = 85)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normally</td>
<td>54</td>
<td>63,5</td>
</tr>
<tr>
<td>Suspect</td>
<td>31</td>
<td>36,5</td>
</tr>
</tbody>
</table>

4. **Breastfeeding Pattern and infant’s Development**

**Tabel 4**

**Relationship between Breastfeeding Pattern with infant's Development**

<table>
<thead>
<tr>
<th>Breastfeeding Pattern</th>
<th>Infant’s Development</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normally</td>
<td>Suspect</td>
</tr>
<tr>
<td>Exclusive</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Predominant</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Partial</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Discussion**

A. **Characteristics of Respondents**

The analysis results showed that the majority of the infant's age was 6 months old as many as 22 babies (25.9%). Exclusive breastfeeding for 6 months is the optimal way of feeding infants. Thereafter infants should receive complementary foods with continued breastfeeding up to 12 months of age or beyond.

The gender distribution of respondents showed that the highest gender was male with 43 babies (50.6%). This is in accordance with data from the Pekanbaru Central Statistics Agency (BPS) in 2018 which states that the number of men (505,769) is more than women (478,905).

As many as 50 respondents (58.8%) were in the age group 26-35 years (early adult). Generally, the most secure fertility age range as 20 – 35 years of age where the production of milk can be stimulated due to optimal breast physiology (National Population and Family Planning Board, 2012).

Distribution of respondents according to type of delivery showed that the majority of mothers were normally delivered as many as 61 respondents (71.8%). In the opinion of the researchers, a cesarean delivery causes the mother not to give breast milk directly due to pain in the wound after surgery. This condition causes the mother's prolactin hormone to
decrease so that the production of breast milk is small and causes the mother to give prelacteal feed to the baby, thus thwarting exclusive breastfeeding.

The results of Rosha and Utami's (2013) study stated that mothers who breastfeed their baby more than 1 hour after delivery had risk of 4.87 times for give the baby prelacteal food compared with mothers who breastfeed less than 1 hour after delivery.

B. Breastfeeding Pattern and Infant’s Development

In this study, the behavior of mothers who provide additional food early such as starch and fruit to the baby, is caused by the habits of parents of respondents who provide additional food before the baby 6 months old. Similar results were also obtained from research conducted by Arini (2012) that mothers who still follow their parent's parenting become the cause of mothers giving complementary feeding to child.

According to interviews outcomes, mothers often gave additional drinks to babies such as honey and coffee. Based on their belief that coffee could prevent febrile seizures in infants and honey could maintain the health of the baby. In line with the research by Putri and Ilahi (2017) which states that the cause of the failure of exclusive breastfeeding is the lack of knowledge of mothers that giving drinks other than breast milk can thwart exclusive breastfeeding.

In researcher’s opinion, less participation on attending posyandu and lack of health information were the main reason for the low level of exclusive breastfeeding in this study. Mothers convinced that breastfeeding alone is not enough to meet the needs of the baby, so by providing complementary food was the best choice (Agrina, Kimura, & Tsuda, 2015).

The results portrayed that most babies had normal development as many as 54 babies (63.5%), but the number of respondents who had developmental delays was also quite high, namely 31 infants (36.5%). The majority of respondent mothers in this study are housewives; therefore babies are always close to their mothers. This causes the mother to have enough time to stimulate baby's development.

In accordance with the theory presented by Soetjiningsih and Ranuh (2016) that children who get directed and regular stimulation will develop faster than children who do not get stimulation.

Furthermore, the highest percentage was 85.0% infants had normal development and get exclusive breastfeeding in this study. Exclusive pattern is higher percentage in normal development than the predominant breastfeeding patterns. This shows that predominantly and partially (non-exclusively) breastfeeding infants are more suspicious of their development compared to exclusive breastfeeding infants.

There is rapidly complex growth and development on motoric and brain at the age of 6-12 months. This growth and development will run normally if the child gets adequate nutrition (Hidayat, 2014).

Breastfeeding contains enough nutrients and minerals for the first six months of a baby's life, breast milk also contains immune substances that provide protection against infection (WHO, 2016). Indonesian Doctors Association (IDI, 2017) asserts that children who get exclusive breastfeeding have higher IQ scores and better performance at school.

In this study show that exclusive breastfeeding more likely to infant development. Exclusive breastfeeding babies have better development than predominantly and partially (non exclusive) breastfeeding infants. Koiriyah (2017) in the work area of Sumbersari Public Health Center Bantul Metro Selatan explain that there is a relationship between exclusive breastfeeding and the
development of infants aged 6 - 12 months with a p-value of 0.028.

Conclusions
The study represented that the majority of infants had exclusive breastfeeding patterns as much as 85.0%, while a total of 58.5% partially breastfed infants had developmental suspect. Chi-Square statistical test results obtained p-value 0.000. A significant relationship between breastfeeding patterns and infant development in this study result.

Acknowledgements
Researchers express the highest gratitude for the guidance and assistance from various parties in the completion of this research.

References


THE RELATIONSHIP BETWEEN FAMILY SUPPORT AND HYPERTENSION STAGE

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Abstract

Background: Hypertension is one of deadly disease, which need family support to succeed patients disease care. Objective: this study was aimed to determine how family support (emotional, instrumental, informational, appreciation), assess hypertension stage in hypertensive patient, and examine correlation the family support and stage of hypertension among hypertensive patient. Method: This study used descriptive correlation with cross sectional approach. Data was collected from 73 respondents by using family support questionnaire to measure condition of the hypertensive patients for the last month. Meanwhile, hypertension stage was measured by blood pressure values based on the current measurement during the study. Result: Univariate analysis shown that majority of participants age 46-55 years are 27 respondents (37%), woman 48 responden (65,8%), length of hypertensive >5 years 29 respondents (39,7%), good family support 42 respondents (42%) and stage 1 hypertension are 37 respondents (50,7%). Bivariate analysis (chi-square) shonwthat value (0,014) which is less than < α (0,05), it concluded there is a relationship between family support and hypertension stage. Conclusions: It can be conclude that family support in the management of hypertension to reduce the patient's blood pressure.

Keywords: Blood Pressure, Family Support, Hypertension Stage.

Introduction

Hypertension is an increase in a person's blood pressure above normal, namely an increase in diastolic blood pressure or irregular systolic blood pressure that occurs continuously (Widiarti, Yudha, Wahyuningsih, Tiar, & Ariani, 2011). The World Health Organization says that cardiovascular disease is the number 1 cause of death in the world (WHO, 2017). Hypertension is estimated to cause 7.5 million deaths from the total of all deaths worldwide (WHO, 2015). The prevalence of hypertension in Indonesia nationally is 30.9% (Kementerian kesehatan RI, 2017). Based on the illness of patients who visited the health center in Riau province, hypertension was in the top ten most cases, hypertension was in the third place with the number of cases 14.16% (Dinas Kesehatan Provinsi Riau, 2016.)

Hypertension can attack anyone regardless of age (Pudiastuti, 2011). Complications and deaths due to hypertension can be controlled by means of pharmacological treatment or by non-pharmacological means (Pudiastuti, 2011). Treatment and management of hypertension to be successful, it is necessary to have social support, environmental factors that support, and family support (Effendi & Larasati, 2017).

Effendi and Larasati (2017), in his research entitled family support in the management of hypertension, showed that family support was instrumental in hypertension management, namely in terms of adherence to medication, family harmony, financial balance, controlling
health, well-being, daily eating, physical activity, and stress management. This shows that family support is very necessary in patient hypertension management.

The purpose of this study was to determine the relationship of family support with the hypertension stage.

The results of this study can be used as a source of information and can be used as a reference in the development of nursing science related to the support of families with hypertension stage.

Method
This study used quantitative design with a cross sectional approach. The population in this study were all of hypertensive patients totaling 270 people who were treated at the Payung Sekaki Puskesmas Pekanbaru in December 2017. The research sample was hypertensive patients totaling 73 people with sampling using purposive sampling technique. Data collection instrument in this study was questionnaires. Data analysis used in this study was univariate and bivariate analysis.

Results
A. Univariate Analysis
1. Characteristics of Respondents
Table 1
Frequency Distribution of Respondent Characteristics

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics of Respondents</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Early Adult (26-35 years)</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Late Adults (36-45 years)</td>
<td>27</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Early Elderly (46-55 years)</td>
<td>12</td>
<td>16.4</td>
</tr>
<tr>
<td></td>
<td>Late Elderly (56-65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elderly (&gt; 65 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows the data that of the 73 respondents studied, it was found that the majority of respondents had positive family support were 42 people (57.5%).

1. Family Support
Table 2
Frequency Distribution of Respondents Based on Family Support

<table>
<thead>
<tr>
<th>No</th>
<th>Family support</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive</td>
<td>42</td>
<td>57.5</td>
</tr>
<tr>
<td>2</td>
<td>Negative</td>
<td>31</td>
<td>42.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

2. Hypertension Stage
Table 3
Respondent Frequency Distribution Based on Hypertension Stage

<table>
<thead>
<tr>
<th>No</th>
<th>Duration of hypertension</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt;1 year</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>1-5 years</td>
<td>25</td>
<td>34.2</td>
</tr>
<tr>
<td>3</td>
<td>&gt; 5 years</td>
<td>29</td>
<td>39.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 3 shows that the more respondents who were in stage 1 hypertension compared to stage 2 hypertension were 37 people (50.7%).

### B. Bivariate Analysis

Table 4

<table>
<thead>
<tr>
<th>Family Support</th>
<th>Hypertension Stage</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage 1</td>
<td>Stage 2</td>
</tr>
<tr>
<td>Positive</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td></td>
<td>27 64,3</td>
<td>1 35,7</td>
</tr>
<tr>
<td>Negative</td>
<td>10 32,3</td>
<td>2 67,7</td>
</tr>
<tr>
<td>Total</td>
<td>37 50,7</td>
<td>3 49,3</td>
</tr>
</tbody>
</table>

Table 4 above illustrates the relationship between family support and stage of hypertension. The results of the statistical test obtained p value 0.014 <α = 0.05. It was concluded that there was a relationship between family support and stage of hypertension.

### Discussion

#### A. Characteristics of respondents

1. **Age**

   Research conducted on 73 respondents found that more patients with hypertension were in the range of the elderly elderly age (46-55 years) as many as 27 people (37%). Udjianti (2013), men aged 35-50 years and women. post menopause, which is around the age of 45 years is at high risk for hypertension, menopausal women are prone to hypertension associated with a decrease in estrogen production.

2. **Gender**

   Based on the results of research conducted on 73 respondents, the results showed that most of the hypertensive patients were female, as many as 48 people (65.8%). Kurniadi and Nurrahmani (2015), women who use oral contraceptives, especially over 35 years of age, and have used oral contraceptives for 5 years are usually found to have an increase in mild blood pressure or in people with obesity, this is due to an increase in plasma volume due to increased renin activity - angiotensin-aldosterone that appears when oral contraceptives are used.

3. **Occupation**

   Based on the results of research showed that most of the work of hypertensive patients was as housewives as many as 41 people (56.2%). Bisnu, Kepel, and Mulyadi (2017) found that the most hypertensive respondent's work was as housewives as many as 34 people (50%). According to him the type of work also affects blood pressure this can happen because if someone who is not working or just as a housewife, lacks physical activity or exercise and this will make a person tends to have a higher heart rate so that it will cause heart muscle work harder on each heart to contract which will cause increased pressure on the arteries.

4. **Duration of hypertension**

   The results of research conducted on 73 respondents, obtained results that more hypertensive patients who suffer from hypertension more than 5 years as many as 29 people (39.7%). According to Puspita (2016), the longer a person suffers from hypertension, the lower the level of adherence, this can be caused by a feeling of boredom consuming drugs while the cure rate is not as expected so that a person tends not to routinely consume antihypertensive drugs.

5. **Family Support**

   The results showed that most respondents had good family support, as many as 42 people (57.5%). This research is in line with the research conducted by Nainggolan, Amriyati, and Supriyono (2012). It was found that most
hypertensive respondents received good support as many as 27 people (60%). Friedman, Bowden, and Jones (2010), family support is very influential on one's health, family is a source of practical and concrete help, if a person has good family support, a person will tend to have a higher level of health.

6. Hypertension Stage

Based on the results of research showed that more respondents who were in stage 1 hypertension were as many as 37 people (50.7%). This research is in line with the research conducted by Wijaya and Sugiyanto (2011), based on the results of his research, it was found that the most hypertensive category of respondents was in stage 1 hypertension as many as 22 people (73.3%), according to him this was due to the treatment efforts by respondents that is one of them by taking medicine from the health center. Bisnu, Kepel, and Mulyadi (2017), in their research explained that family support is closely related to the degree of hypertension of patients.

B. Bivariate Analysis

1. Relationship of family support with stage of hypertension

   Based on the results of research conducted, it was found that 42 people (57.5%) who had positive family support, 27 people (64.3%) were in stage 1 hypertension, and 15 people (35.7%) were in stage 2 hypertension. Of the 31 respondents who had negative family support, 10 people (32.3%) were in stage 1 hypertension, and 21 people (67.7%) were in stage 2 hypertension. Bisnu, Kepel, and Mulyadi (2017), in their research explained that family support is closely related to the degree of hypertension of patients. This is caused by the degree of hypertension a person is influenced by family support in the implementation of patient's hypertension management.

Conclusions

The results showed that the characteristics of respondents based on age were mostly in the age range of 46-55 years as many as 27 people (37%), based on the sex of the majority of respondents, namely women with a total of 48 people (65.8%), most of the respondents' jobs were The IRT is 41 people (56.2%), and based on the duration of hypertension the most respondents who suffer from hypertension more than 5 years that is 29 people (39.7%).

Based on the results of the research that has been done, most of the respondents received positive family support as many as 42 people (57.5%), and based on the stage of hypertension the most respondents were in hypertension stage 1 which was 37 people (50.7%). Chi-Square test results of family support with hypertension stage obtained p value 0.014 < α = 0.05. It was concluded that there was a relationship between family support and stage of hypertension.

Acknowledgements

Thank you infinitely for the help and guidance from various parties in the completion of this research report.

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Friedman, Marilyn M., Bowden, Vicky R., & Jones, Elaine. G. (2010). *Buku ajar keperawatan keluarga riset teori & praktik* (5th ed.). Jakarta: EGC.


EFFECTS OF FOOT REFLECTION MASSAGE AND ACUPRESSURE FOR PATIENT WITH HYPERTENSION

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Abstract

Hypertension is a risk factor of cardiovascular disease. The study aimed to evaluating the effectiveness of foot reflection massage and acupressure on blood pressure with hypertensive patient. The therapy was applied to 34 patients of foot reflection massage and acupressure are chosen by aged 30 to 60 years old attending Health Center Rejosari. Statistic analysis of bivariate was used. Approval on the study was obtained from the Ethical Review Board for Medical and Health Research, Medical Faculty, University of Riau. Mean systolic and diastolic blood pressure pre-test reflection massage (150.49/96.58 mmHg) and acupressure (156.08/102.07 mmHg) and post-test reflection massage (144.42/92.12 mmHg) and acupressure (147.18/95.54 mmHg) decreased at 15 minute after therapy. There was significant difference of systolic and diastolic blood pressure after the two therapies (p<0.05). Foot reflection massage and acupressure can lower blood pressure in hypertensive patients and may be included in the nursing care plan for hypertension.

Keywords: Acupressure, blood pressure, foot reflection massage, hypertension

Introduction

Hypertension is an abnormal high blood pressure and is measured at least three readings at different times. A person is considered to have hypertension if his blood pressure is higher than 130/80 mmHg [2]. Hypertension is 1.13 billion population in the world [14]. Based on data from the Pekanbaru City Health Office in 2017, hypertension is among the top ten diseases in the city of Pekanbaru, which ranks number 2 after upper respiratory tract infections. The number of cases of hypertension in Pekanbaru City is 35,090 cases in 2017. Alternative options for lowering blood pressure without drug dependence and minimizing side effects are using non-pharmacological management [6]. Non-pharmacological treatments that can reduce blood pressure in hypertensive patients can be done in various ways, such as: with stress reduction techniques, weight loss, reducing alcohol consumption, exercise, and relaxation [9].

One of the relaxation technique that can be used as an alternative therapy for hypertension is foot reflection massage. Foot reflection massage performed on the soles of the feet, especially on organs that have problems, will provide energy stimulation to the nerve points associated with blood pressure, such as: head, forehead, cerebellum, pituitary gland, temples, ears, thyroid gland, kidney, ureter, and the bladder to become active so that it produces hormones optimally through the nerve points that are on the soles of the feet that are massaged appropriately [1]. In patients with hypertension there are also symptoms of headaches, dizziness, weakness, and nausea. Headaches in patients with hypertension can be overcome by acupressure points at the meridian Governing Vessel (GV) 20 Baihui which
are effective for reducing pain [8]. The smooth blood in the area of this meeting point makes blood flow to the brain and heart fulfilled. Point GV 20 Baihui functions as a repair of blood vessel circulation and dizziness or headaches due to massage at the point GV 20 Baihui makes blood flow to the brain and heart become smooth so that headaches can be resolved and blood pressure becomes stable [13].

The study aimed to evaluating the effectiveness of foot reflex massage and acupressure on blood pressure with hypertensive patient. The results of this study are expected to provide information in the knowledge of the effectiveness of foot reflexology and acupressure on blood pressure in hypertensive patients.

**Method**

This research was carried out in the area of Health Center Rejosari, Pekanbaru City, which started from February to July 2018. The study began with a pre-test of blood pressure measurement before being given therapy in the experimental group A and the experimental group B. In the experimental group A and experimental group B were given therapy 1 time a day for 15 minutes, after the therapy finished the therapist did post-test by measuring blood pressure. The same process was carried out for 3 consecutive days in the experimental group A and experiment group B. This study was used to determine the effectiveness of foot reflexology and acupressure on blood pressure in hypertensive patients.

**Result**

1. **Univariate Analysis**

**Tabel 1**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Foot reflection massage group (n=17)</th>
<th>Acupressure group (n=17)</th>
<th>Jumlah</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Adult</td>
<td>5</td>
<td>29,4</td>
<td>4</td>
</tr>
<tr>
<td>36-45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Elderly</td>
<td>7</td>
<td>41,2</td>
<td>7</td>
</tr>
<tr>
<td>46-55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late Elderly</td>
<td>5</td>
<td>29,4</td>
<td>6</td>
</tr>
<tr>
<td>56-65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **Bivariate Analysis**

**Tabel 2**

**Difference of Mean Systolic Blood Pressure Before and After Intervention in the Foot Reflection Massage and Acupressure Group**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot reflection massage</td>
<td>Pretest</td>
<td>17</td>
<td>150,49</td>
<td>12,74</td>
</tr>
<tr>
<td>group</td>
<td>Posttest</td>
<td>17</td>
<td>144,42</td>
<td>13,25</td>
</tr>
<tr>
<td>Acupressure group</td>
<td>Pretest</td>
<td>17</td>
<td>156,08</td>
<td>12,64</td>
</tr>
<tr>
<td></td>
<td>Posttest</td>
<td>17</td>
<td>147,18</td>
<td>12,15</td>
</tr>
</tbody>
</table>

**Tabel 3**

**Difference of Mean Diastolic Blood Pressure Before and After Intervention in the Foot Reflection Massage and Acupressure Group**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot reflection massage</td>
<td>Pretest</td>
<td>17</td>
<td>96,58</td>
<td>6,50</td>
</tr>
<tr>
<td>group</td>
<td>Posttest</td>
<td>17</td>
<td>92,12</td>
<td>6,13</td>
</tr>
<tr>
<td>Acupressure group</td>
<td>Pretest</td>
<td>17</td>
<td>102,07</td>
<td>15,31</td>
</tr>
<tr>
<td></td>
<td>Posttest</td>
<td>17</td>
<td>95,54</td>
<td>14,41</td>
</tr>
</tbody>
</table>

**Discussion**

**Respondent Characteristics**

1. **Age**

The results of research conducted on hypertensive patients at the Rejosari Health Center showed respondents according to the minimum age of 37 years of age and a maximum age of 60 years and the average age of hypertensive respondents aged 51 years. Based on the age category, the most respondents were in the elderly category 46-55 years with a
total of 14 people (41.2%). The results of research conducted by Gerungan, Kalesaran and Akili also stated the same thing that most hypertensive patients were in the age range ≥45 years as much as 65.4% [3].

2. Differences of mean blood pressure before and after intervention foot reflexology

The Dependent t test results obtained p value of 0.000 systolic and diastolic blood pressure (p <0.05). This means that there is a significant effect between the mean systolic and diastolic blood pressure of foot reflexology group before and after being given the intervention. Research conducted by Rezky, Hasneli and Hasanah with the title "The Effect of Foot Reflection Therapy on Blood Pressure in Primary Hypertension" results in foot reflexology can reduce systolic blood pressure by 6.29 mmHg and diastolic by 2.09 mmHg [10].

Massage performed on the area of foot reflexology on the head point, forehead point, cerebellum point, temple point, ear point, bladder point physiologically stimulates the body to release endorphins, which is a vasodilator compound that is able to dilate narrowed blood vessels especially blood vessels that are associated with the problematic organ so that it can accelerate blood circulation in the head, ear and urinary tract so that blood pressure can go down by overcoming symptoms such as headaches, buzzing ears and frequent urination [11].

Emphasis on the kidney point can inhibit renin production so that it inhibits the formation of angiotension II which is a strong vasoconstrictor causing increased blood pressure [5]. Emphasis on the points of the pituitary gland and thyroid gland is also able to inhibit hormone release of the hormone diuretic (ADH) and thyroid hormone thyroxine (T3) and triiodothyronine (T4) which trigger hypertension [1]. This is proven through research conducted by Rezky, Hasneli and Hasanah which concluded that foot reflection can reduce systolic and diastolic blood pressure in patients with hypertension [10].

3. Differences of mean blood pressure before and after acupressure intervention

The results of the Dependent t test of systolic blood pressure obtained p value 0.000 (p <0.05) and the Wilcoxon test diastolic blood pressure obtained p value 0.000 (p <0.05). This means that there is a significant influence between the mean of systolic and diastolic blood pressure in the acupressure group before and after being given acupressure intervention. Headaches in patients with hypertension can be overcome by acupressure points at the meridian Governing Vessel (GV) 20 Baihui which are effective for reducing pain [8]. The smooth blood in the area of this meeting point makes blood flow to the brain and heart fulfilled. Point GV 20 Baihui functions as a repair of blood vessel circulation and dizziness or headaches due to massage at the point GV 20 Baihui makes blood flow to the brain and heart become smooth so that headaches can be resolved and blood pressure becomes stable [13]. Acupressure is a complementary therapy to balance the nervous system and endocrine system [4].

The results of research conducted by Widodo with the title "The Effect of Acupressure Therapy on Hypertensive Patients in the Synergy Mind Health Clinic in Surakarta" got the results that the average blood pressure after acupressure was 135.6 / 82.6 mmHg lower than before acupressure that is equal to 146.5 / 92.6 mmHg [12].

After an acupressure intervention, some respondents said that headaches were reduced. This opinion is supported by Wong which states that suppression of acupressure at the GV 20 Baihui point serves as an improvement in blood vessel circulation, if massage is done at the point GV 20 Baihui makes blood flow to the
brain and heart become smooth so that dizziness and headaches can be resolved [13].

Conclusions

Based on the results of the effectiveness of foot reflection massage and acupressure on blood pressure in hypertensive patients who had been carried out at the Health Center Rejosari Pekanbaru, the results showed that the majority of respondents were 46-55 years old (41.2%). Statistical test results on foot reflection massage and acupressure group showed very significant results on changes in systolic and diastolic blood pressure before and after being given foot reflection massage and acupressure therapy with (p = 0.000).

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DESCRIPTION OF COMMUNITY BEHAVIOR TOWARDS PREVENTION OF DENGUE HEMORRHAGIC FEVER (DHF)

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Abstract

Dengue Hemorrhagic Fever (DHF) is a disease caused by dengue virus infection which is transmitted by Aedes Aegypti mosquito which is a very dangerous disease that causes death. The highest incidence rate in Pekanbaru City is found in Bukit Raya Sub-district with 91 participants, especially in the Air Dingin Village, which are 27 patients in 2017. This study aims to find out the description of behavior consisting of knowledge, attitudes, and actions of the community towards the prevention of DHF. The study was conducted in the community using a descriptive method with a cross sectional approach. This research was conducted on 100 samples using non probability sampling techniques. The choice of area is taken according to a place that is endemic to the incidence of DHF which consists of 3 RWs which are found in Air Dingin Village. The measuring instrument used is a questionnaire sheet that has been tested for validity and reliability tests. Data analysis used in this study consisted of univariate analysis. The results showed that the community of Air Dingin Village had good majority knowledge of 54 responden (54%), most of them had negative attitudes of 51 respondents (51%), and most of the negative community actions were against prevention of dengue as many as 55 respondents (55%). It is suggested to the community to be able to further increase their knowledge so that the community can encourage better attitudes and actions in the prevention of dengue.

Keywords: Dengue Hemorrhagic Fever (DHF), behavior

Introduction

Dengue Hemorrhagic Fever (DHF) is a disease caused by dengue virus infection transmitted through the Aedes Aegypti mosquito (Chelvam & Pinatih, 2017). The incidence of DHF has increased dramatically throughout the world in recent years. Prevalence of 3.9 billion people in 128 countries in the world is at risk of dengue virus infection (World Health Organization [WHO], 2017).

DHF cases in Indonesia were first discovered in Surabaya 1968, where as many as 58 people were infected and 24 of them died with the Case Fatality Rate (CFR) reaching 41.3%. Since then, DHF has spread to all provinces in Indonesia (Manalu & Munif, 2016).

The problem of DHF until now still requires serious attention, especially in Riau Province. In 2015 the number of dengue cases in Riau Province was reported as many as 3,261 people with morbidity and mortality rates of 20 people. One of the cities in Riau Province is Pekanbaru. The increase in the number of DHF patients in Pekanbaru 2015 was reported as many as 516 cases of sufferers and 5 deaths (MOH, 2015).

Based on data from the Pekanbaru City Health Office in 2017, the number of dengue cases was 598 patients and 3 deaths. The incidence of DHF is based on
the 12 highest endemic districts; 91 sufferers in Bukit Raya, 83 sufferers in Tenayan Raya, 71 sufferers and 1 death cases in Marpoyan Damai. The highest data obtained from Harapan Raya Community Health Center, Bukit Raya District are found in Air Dingin Village with 27 patients and Tangkerang Selatan Village with 23 patients (Harapan Raya Community Health Center, 2017).

The cause of DHF can be transmitted through Aedes Aegypti mosquito. Mosquito breeding sites can be found in humid environments, high rainfall, in places that are flooded both in homes and outdoors and scattered or piled garbage. Bad environmental situation, unhealthy community behavior, and population density are another factors that caused DHF (Gama & Betty, 2010). DHF is also one of the diseases that can spread rapidly and often fatal because many patients die due to the slow treatment (Widoyono, 2011).

Community behavior that linked on how to eradicate dengue mosquito nest with positive behaviors such as efforts to drain, close, bury (3M), while negative behavior can be contradictions from those efforts. Mosquito Nest Eradication (MNE) of Dengue Hemorrhagic Fever (DHF) have not been realized optimally because there are still many trash that is dumped carelessly around the yard and in residential areas such as used cans and tires that are not used (Packing & Nelwan, 2012).

The results of Manalu and Munif's (2016) study of community knowledge in West Java and West Kalimantan Provinces can be said to be still poor, based on the results of respondents' answers to whether or not they’ve ever heard about DHF, the causes, and modes of transmission. There were 600 respondents; 7.2% participants had heard about DHF, 81.5% argue that the transmission through mosquito bites, while 76.6% argue that the infectious through Aedes Aegypti mosquitoes. High levels of public knowledge about prevention of dengue will influence attitudes to make decisions in behaving. A person's attitude in an effort to prevent DHF is important because of their knowledge and experience can lead them to take a proper action.

Based on a preliminary study on February 6, 2018 conducted around the area of Air Dingin Village which was conducted with observations of 10 people. Based on knowledge; there were 8 people who did not know the abbreviation of 3M, and 4 people did not know the Community Health Center program for eradicating dengue. Based on the attitude; there were 2 people who did not know the effort to prevent dengue disease. Based on behavior; there were 4 people cleaned the bath once every two weeks, 6 people did not close their water storage, 4 people did not use abate powder, 10 people never bury their waste because the garbage was collected every two days, and there were 2 people collected it to be sold.

Based from the background above, the researchers initiated a study on the description of people's behavior towards the prevention of Dengue Hemorrhagic Fever (DHF) in Air Dingin Village, Bukit Raya District, Pekanbaru.

The purpose of this study was to determine the behavior of the community towards the prevention of dengue in the Air Dingin Village, Bukit Raya District, Pekanbaru.

The benefits of this study are that it can be used as information related to community behavior towards prevention of dengue and as a reference for the development of community nursing science so that people can overcome dengue problems.

**Method**

The study design is descriptive with a cross sectional approach. The population
was observed from Air Dingin village, Pekanbaru. A total of 100 families were observed using non-probability sampling technique with a type of purposive sampling by taking areas that are endemic in the Air Dingin Village, Pekanbaru. Data collection tools using questionnaires consisting of the characteristics of respondents and statements about the description of people's behavior towards prevention of dengue which consists of 3 domains of behavior, namely: knowledge, attitude, and action. Data analysis used is univariate analysis using frequency distribution.

**Result**

1. **Univariate Analysis**

Frequency distribution in the characteristic table of respondents.

<table>
<thead>
<tr>
<th>Table 1 Distribution of Respondent Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respondent Characteristics</strong></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>21-35 years old (Early adult)</td>
</tr>
<tr>
<td>36-45 years old (Late adult)</td>
</tr>
<tr>
<td>46-55 years old (Early Elderly)</td>
</tr>
<tr>
<td>56-65 years old (Late elderly)</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Man</td>
</tr>
<tr>
<td>Woman</td>
</tr>
<tr>
<td>Education Degree</td>
</tr>
<tr>
<td>SD</td>
</tr>
<tr>
<td>SMP</td>
</tr>
<tr>
<td>SMA</td>
</tr>
<tr>
<td>University</td>
</tr>
<tr>
<td>Occupation</td>
</tr>
<tr>
<td>Entrepreneur</td>
</tr>
<tr>
<td>Housewife</td>
</tr>
<tr>
<td>Nurse</td>
</tr>
<tr>
<td>Civil Servant</td>
</tr>
<tr>
<td>Lecture</td>
</tr>
<tr>
<td>Teacher</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Based on table 1 shows that from 100 respondents, 49 respondents (49%) at the age of 26-35 years old (early adults). The majority of respondents were female, as many as 72 respondents (72%). A number of 42 respondents (42%) were high school graduate, and 49 respondents (49%) were housewives.

<table>
<thead>
<tr>
<th>Table 2 Frequency Distribution Based on Community Knowledge against DHF Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Based on table 2, it is known the results of the analysis of 100 respondents, most of whom had good knowledge, namely 54 respondents (54%).

<table>
<thead>
<tr>
<th>Table 3 Frequency Distribution Based on the Community Attitudes towards DHF Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Based on table 3, from 100 respondents, the majority of respondents have negative attitudes, namely 51 respondents (51%).

<table>
<thead>
<tr>
<th>Table 4 Frequency Distribution Based on Community Actions against Dengue Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No.</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

It is showned that mainly 55 respondents (55%) out of 100 have negative actions.

**Discussion**

1. **Univariate Analysis**
a. Characteristics of Respondents

1) Age
The results showed 100 respondents were mostly aged 21-35 years old (early adults) totaling 49 respondents (49%). Suryati, et al (2013) stated that the respondent's age > 35 years revealed that the behavior (knowledge, attitude and practice) of a person is due to maturation where the more aged or mature one will be very quick to adapt to the environment.

2) Gender
Out of 100 participants, 72 (72%) of them were females. According to Lee, Fitriangga, and Nawangsari (2014) Distribution of respondents by gender was mostly female, which was 61 respondents (64.2%).

3) Education Degree
Most of the respondents surveyed had a high school degree (42 respondents / 42%). In line with Purba, Keloko, and Syahrial (2014) research that the education level of participator in general is high school / vocational graduate, namely as many as 35 respondents (41.67%).

4) Occupation
During the survey, it was dominated by housewives, with a total of 49 respondents (49%).

In accordance to Pangemanan ad nelwan study (2012), participant’s status as housewives (IRT) carry out more routine activities at home such as maintaining cleanliness and comfort at home.

b. Representation of Community Behavior against Dengue Hemorrhagic Fever (DHF) Prevention

1) Community knowledge of dengue prevention
Research showed on 100 respondents, most of the respondents had good knowledge, namely 54 respondents (54%). The results of the study by Suryati, et al (2013) revealed that high knowledge of DHF will have the opportunity to behave well compared to low knowledge.

2) Community attitudes towards dengue prevention
This study represented that most of the respondents had a negative attitude, which amounted to 51 respondents (51%). This research is in line with the research by Bahtiar (2012) with the frequency distribution of attitudes mostly having a negative attitude of 72.5%. It can be illustrated that negative attitudes tend to show a lack of role for the character in controlling DHF.

3) Community actions to prevent DHF
It is reported that mainly 55 respondents (55%) had taken an action to prevent it.

Research by Purba, et al (2014) stated that most of the respondents' actions on dengue control were in the sufficient category, namely as many as 42 respondents (50%). This is due to the limited time to do 3M because of the amount of activity used to make a living outside the home.

Conclusion
Based on the results of the analysis and discussion of research on the description of community behavior towards the Dengue Hemorrhagic Fever (DHF) prevention in Air Dingin Village, Bukit Raya district, Pekanbaru, conducted on 100 respondents, it can be concluded based on the respondents' characteristics, the majority of respondents were 21-35 years old (early adults) as much as 49 respondents (49%), then the gender of the majority of women was 72 respondents (72%), then the most educated were mostly high school with a total of 42 respondents (42%), and unemployemnt / housewives (IRT) with 49 respondents (49%). Based on people's behavior towards the prevention of dengue hemorrhagic fever (DHF) which consists of the knowledge most of the people have good knowledge, namely 54 respondents (54%), then from the attitude of the community most have a negative attitude.
with the number of 51 respondents (51%), and the actions of the community mostly have negative actions with a total of 55 respondents (55%).

**Suggestion**
1. For the Development of Nursing Science
   This study are expected to add more information and input for the development of nursing science, especially for community nurses about community behavior towards prevention of dengue.
2. For Service Institutions
   The study results are expected to always provide counseling about the community behavior towards the dengue prevention so that the community gain an understanding and can periodically control the environment, and also invites the community to actively participate in the prevention of dengue.
3. For the Community
   It is hoped that community will always find out more about DHF and be able to do and improve the prevention of DHF.
4. For Further Research
   The data obtained are expected to use as an information for further researchers so that further researchers can continue research on the description of community behavior towards dengue prevention.

**Acknowledgements**
Thank you to all parties for your help and guidance in completing this research report.

1. **Ruvida Ulfa**: Mahasiswa Fakultas Keperawatan Universitas Riau, Indonesia
2. **Arneliwati**: Nursing Lecturer of the Nursing Faculty Community of Riau University, Indonesia
3. **Erwin**: Lecturer at the Department of Medical Nursing, Faculty of Nursing, University of Riau, Indonesia

**References**


NOMOPHOBIA: INCIDENTS AND LEVELS AMONG INDONESIAN TEENAGERS

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Abstract

Objective: Nomophobia is a phobia of the modern era and the result from the interaction between humans and new technology, because now smartphones have taken over the cellular phone market and almost replaced cell phones. This study aims to identify nomophobia incidence and levels among teenagers. Method: This research is a quantitative research with descriptive-evaluative research design. The sample of the study consisted of 260 respondents purposively selected using proportionate stratified random sampling technique. A valid and reliable Nomophobia Questionnaire (NMPQ) was utilized to capture data prior to analysis using descriptive statistics. Result: The study found out that (78.1%) of the respondents are moderately nomophobic. Conclusion: The study reveals initial incidence of nomophobia among a select group of Indonesian adolescents, and recommends orientation to new technologies and further studies.

Keywords: nomophobia, teenager, smartphone

Introduction

Smartphone is one of the communication media that is in the spotlight because it has the sophistication in various things and its effective and efficient functions that can be used anytime and anywhere. Excessive use of smartphones will cause health problems such as dizziness, earache, and blurred eyes due to radiation exposure is one of the most frequently debated problems. Prabandari (2017) states that smartphone addiction is called nomophobia. Nomophobia or commonly known as no mobile phone phobia or disease cannot be far from mobile phone is a disease of dependence experienced by an individual on a cellular phone, so that it can bring excessive concerns if the cellular phone is not nearby (Hardianti, 2016).

In this study nomophobia will be discussed in relation to smartphones. As King et al. (2010) stated, nomophobia is a phobia of the modern era and results from the interaction between humans and new technology, because now smartphones have taken over the cellular phone market and almost replaced cell phones. Nomophobia has four aspects, namely, inability to communicate, loss of connection, inability to access information, and comfort provided by smartphones (Yildirim, 2014).

Pavithra, Madhukumar and Mahadeva (2015) have also conducted research with the title A study on nomophobia – mobile phone dependence, among students of a medical college in Bangalore with research subjects of 200 students consisting of 47.5% of women and 52.5% of men man. About 23% of students feel lost in concentration and become stressed when they are away from cell phones, 39.5% of students experience nomophobia while 27% are at risk of experiencing nomophobia.
The results of the preliminary study were conducted at SMP 25 Pekanbaru, which is one of the schools with the most students in Pekanbaru according to the Pekanbaru City Education Agency in 2017/2018, using interview techniques for 10 class VII and VIII students who use smartphones and obtained 5 students using smartphones more than 10 hours a day, 2 dependency students with smartphones in carrying out their daily activities and 3 students who have started to feel uneasy when they are far away from smartphones.

Method
This type of research is quantitative research using descriptive research design. The population in this study were all students of class VII and VIII at SMP N 25 Pekanbaru with a population of 748 people. Sampling in this study uses techniques proportionate stratified random sampling. Tools data collection using questionnaires compiled by Yildirim (2014), namely Nomophobia Questionnaire (NMP-Q) with a total of 20 statements. Data analysis used is univariate analysis using frequency distribution.

Result
Univariate Analysis
Characteristics of Respondents
Table 1
Respondent Frequency Distribution Based on Demographic Data (N=260)

<table>
<thead>
<tr>
<th>Characteristics of respondents</th>
<th>Amount (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>159</td>
<td>61.2</td>
</tr>
<tr>
<td>Woman</td>
<td>101</td>
<td>38.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-14 years</td>
<td>257</td>
<td>98.8</td>
</tr>
<tr>
<td>15-17 years old</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that most of the respondents are male, as many as 159 respondents (61.2%). The age characteristics of the most respondents aged 11-14 years were 257 respondents (98.8%). In a day the majority of respondents use a smartphone that is 3 hours (40.4%) in a day.

Description nomophobia in adolescents
Table 2
Frequency distribution of nomophobia images in adolescents (n=260)

<table>
<thead>
<tr>
<th>Nomophobic level</th>
<th>Amount (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>31</td>
<td>11.9</td>
</tr>
<tr>
<td>Medium</td>
<td>203</td>
<td>78.1</td>
</tr>
<tr>
<td>Light</td>
<td>26</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that the majority of respondents experienced moderate nomophobia, namely 203 respondents (78.1%).

Length of use of smartphones
Table 3
Distribution of the old frequency of smartphone usage (N=260)

<table>
<thead>
<tr>
<th>Length of use of smartphones</th>
<th>Amount (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (&gt; 3 hours)</td>
<td>62</td>
<td>23.9</td>
</tr>
<tr>
<td>Medium (3 hours)</td>
<td>105</td>
<td>40.4</td>
</tr>
<tr>
<td>Low (&lt;3 hours)</td>
<td>93</td>
<td>35.8</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 shows that the majority of respondents use a smartphone that is 3 hours (40.4%) in a day.

Discussion
Characteristics of Respondents
Gender
The results of the study found that most of the respondents were male, as many as 159 respondents with a percentage (61.2%). The number of SMP N 25 Pekanbaru students is more male so the respondents in this study are dominated by men. Data obtained from the Pekanbaru City Education Office in the academic year 2017/2018 revealed that there were 386 male students and 356 female students.

The results of this study are in line with the research conducted by Pavithra, Madhukumar and Mahadeva (2015) with the title A study on nomophobia – mobile
phone dependence, among students of a medical college in Bangalore with research subjects of 200 students consisting of 47.5% women and 52.5% of men.

This is in contrast to the results of research conducted by Gezgin, Sumuer, Arslan and Yildirim (2016) on nomophobia prevalence among pre-service teachers: a case of Tramya university is known that out of 818 respondents there were 589 respondents (72.0%) of type female genital.

Age

The results of the study showed that 260 respondents showed the highest respondents at the age of 11-14 years, namely 257 respondents with a percentage of 98.8%. Age 11-14 years is the early teenage age. Early adolescents, having enthusiasm bring passion and passion into their actions. Adolescence is a time when a person has a high sense of curiosity, thus encouraging them to explore something through a smartphone that causes teenagers to be far from smartphones, this is one sign of nomophobia. The results of research conducted by Gezgin, Sumuer, Arslan and Yildirim (2016) on nomophobia prevalence among pre-service teachers: a case of Tramya university found that there were 341 respondents (41.7%) who experienced nomophobia under 20 years of age.

Description of nomophobia in adolescents and the duration of smartphone use

The results of this study indicate that 100% of respondents belong to the nomophobia category. The results of the research have revealed that the majority of respondents have a moderate nomophobia level of 203 respondents (78.1%). Nomophobia criteria is that teenagers feel anxious when far away from a smartphone but still interact with peers.

This is consistent with the social transition experienced by adolescents as indicated by changes in social relations. One of the important things in social change in adolescents is the increased time to connect with their peers, but in teenagers who experience nomophobia tend to spend their time playing smartphones and not caring about the environment both family and peers.

Research conducted in the United Kingdom (2008) involving 2100 respondents, showed that 53% of respondents suffered from nomophobia. This study also revealed that men are more vulnerable to nomophobia than women, with 58% of men and 48% of women. The causes of nomophobia include lack of parental supervision of their children, having a new smartphone, being curious about information, and the many features of the smartphone. Teenagers who suffer from nomophobia will have a negative impact on the social environment, lack of confidence, felt they could not leave the smartphone even though briefly so that their daily activity becomes disturbed, less focused, and insomnia.

The phenomenon that is often found in everyday life, adolescents often operate mobile phones in an inappropriate atmosphere, such as in the midst of family events, serious talks, when eating, and even going to the toilet (Mulyana & Widyastuti, 2017). Although the use of smartphones in the middle of the event or interaction is considered normal for some people, but the surrounding environment will feel uncomfortable if the interlocutor uses the smartphone continuously or through out the interaction. These conditions will interfere with the ongoing conditions. Sudarji (2017) found that patients with nomophobia will check his smartphone up to 34 times a day and often take it anywhere to the toilet.

In this study there were 31 respondents (11.9%) who experienced severe nomophobia. This must be overcome immediately because it will have a bad impact on health such as the
risk of cancer because the effects of radiation from the smartphone are too frequent, impaired vision due to too often staring at the smartphone screen so that eyes rarely blink causing eye muscles to tense, decreased immune system because too often playing smartphones becomes less resting and affects the immune system, and is affected by carpal tunnel syndrome because they use smartphones too often (Mulyana & Widyastuti, 2017).

Conclusions

Research on nomophobia images in adolescents that have been conducted on 260 respondents in SMP N 25 Pekanbaru can be concluded based on the characteristics of respondents that most respondents are male respondents as many as 159 respondents (61.2%) and most of them are 11-14 years old as many as 257 respondents (98.8%). The results of this study indicate that of 260 respondents, 26 respondents had nomophobia levels mild as much (10.0%), students who have nomophobia levels while there were 203 respondents (78.1%), and students who had nomophobia levels weight of 31 respondents (11.9%).

Acknowledgements

The results of this study are expected to be information for nursing about problems that occur in adolescents. Research result this is also expected can be information and evidence based for me to do further research.

Thank You Note

Thanks for the helped and guide from various parties in the completion of this research report.

Reference


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THE DESCRIPTION OF GYMNASTICS ACTIVITY AND COGNITIVE FUNCTION ON ELDERLY

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²,³Faculty of Nursing University of Riau
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Abstract

Objective: The elderly experience the aging process resulting in decreased function of the body such as cognitive function. Method: The design of research was descriptive. The sample of this research was 40 respondents taken based on inclusion criteria using total sampling technique that are elderly aged over 60 years, elderly who lived in the working area of community health centers, and the elderly who do gymnastics. Montreal Cognitive Assessment sheet (MoCa-Ina) applied to measure cognitive performance and a questionnaire for their exercise program with frequency distribution statistics. Results: The results showed there were 21 respondents (52.5%) did gymnastics 3 times a week, 34 respondents (85%) did gymnastics 20-60 minutes per session, 19 respondents (47.5%) did fitness for elderly, and as much as 28 respondents (70%) had cognitive impairment. Conclusions: Based upon this studies, the researcher suggest to increasing physical activity with promoting memory exercises for elderly in order to reduce risk of poor cognition.

Keywords: Cognitive function, Elderly, Gymnastics

Introduction

Aging is a process of slowly disappearing (graduil) the ability of tissue to repair or replace and maintain normal structure and function, resistance to injury, including infection. Aging will cause changes in the structure and physiology of various cells, tissues, organs, and systems that exist in the human body (Mubarak, 2012).

The aging process causes cognitive impairment, which is clearly seen in memory and intelligence (Santoso & Ismail, 2009). Cognitive function is a mental process in acquiring intelligence or ability, which includes ways of thinking, memory, understanding, planning, and implementation (Santoso & Ismail, 2009). Decreasing cognitive function can cause setbacks in the form of cognitive abilities and setbacks in psychosocial aspects (Tamher & Noorkasiani, 2009).

Physical exercise can have a positive influence on cognitive function because it improves cardiovascular risk factors and affects neurotropic factors, both of which are responsible for brain health and affect cognitive performance. One of the physical exercises that can be done by the elderly is gymnastics (Kusumowardani & Wahyuni, 2017).

According to Widianti and Proverawati (2010), elderly gymnastics is a series of regular and directed and planned tone movements that are followed by elderly people in the form of physical exercises that affect the physical abilities of the elderly. Knowledge of working memory of the elderly increases effectively in old age through the active role of the elderly in memory training. Research on the effects of memory training in the elderly shows an increase in orientation in space and time (Kushariyadi, 2013).
Based on a preliminary study conducted by researchers, it was found that 7 out of 10 elderly experienced cognitive impairment. The results of the preliminary study showed the elderly said it was difficult to remember especially the things that had just been said (short-term memory) and experienced confusion in place and time orientation.

The purpose of this study was to describe the cognitive function in the elderly who did gymnastics. The results of this study are expected to provide information in the development of knowledge about the benefits of gymnastics on cognitive function in the elderly.

**Method**

This research was conducted in the Harapan Raya Health Center area, Pekanbaru City, which began from February to July 2018. This study used quantitative research methods with descriptive research designs.

The population in this study were all elderly people who did gymnastics at Harapan Raya Health Center, Pekanbaru. Sampling uses total sampling technique with inclusion criteria, namely elderly people aged 60 years and over, elderly who live in the working area of Harapan Raya Health Center, and the elderly who do gymnastics.

The data collection tool used in this study was the MoCA-Ina (Montreal Cognitive Assessment) questionnaire to determine cognitive function in the elderly with a sensitivity level of 90% and a specificity rate of 87%.

**Result**

**Univariate Analysis**

Distribution based on the characteristics of the respondents is explained in table 1 below.

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elderly (60-74 years old)</td>
<td>36</td>
<td>90.0</td>
</tr>
<tr>
<td></td>
<td>Old (75-90 years old)</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td>3</td>
<td>Ethnic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minang</td>
<td>19</td>
<td>47.5</td>
</tr>
<tr>
<td></td>
<td>Melayu</td>
<td>16</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Batak</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Jawa</td>
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<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Widow</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td>5</td>
<td>Last Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Primary School</td>
<td>12</td>
<td>30.0</td>
</tr>
<tr>
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<td>Junior School</td>
<td>6</td>
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</tr>
<tr>
<td></td>
<td>Senior School</td>
<td>16</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Bachelor</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td>6</td>
<td>Job</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Housewife</td>
<td>29</td>
<td>72.5</td>
</tr>
<tr>
<td></td>
<td>Trader</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Pension</td>
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<td>15.0</td>
</tr>
<tr>
<td>7</td>
<td>Type of Illness</td>
<td></td>
<td></td>
</tr>
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<td>Do not have chronic diseases</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td></td>
<td>Hipertension</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>Diabetes mellitus</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Cholesterol</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>Uric Acid</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>8</td>
<td>Time Taking Gymnastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;6 months</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>&gt;6 months</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that of the 40 respondents, the characteristics based on the age of the majority were in the elderly category (60-74 years), namely as much as 90%, based on the sex of the majority of elderly women as many as 92.5%, based on the most elderly tribe with Minang as much as 47.5%, based on the marital status of the elderly as big as married to a widow as much as 50%, based on the latest education the most elderly have a high school education level
that is as much as 40%, based on work most of the elderly work as housewives which is as much as 72.5%, based on the type of disease suffered by the majority of elderly people experiencing hypertension, namely as much as 32.5%, and based on the duration of gymnastics, the majority of the elderly had done gymnastics > 6 months as much as 92.5%.

Table 2
Frequency Distribution of Respondent Training Programs

<table>
<thead>
<tr>
<th>No</th>
<th>Training Program</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gymnastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;3 times a week</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>3 times a week</td>
<td>21</td>
<td>52.5</td>
</tr>
<tr>
<td></td>
<td>3-5 times a week</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>2</td>
<td>Gymnastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;20 minutes/sess ion</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>20-60 minutes/sess ion</td>
<td>34</td>
<td>85.0</td>
</tr>
<tr>
<td></td>
<td>&gt;60 minutes/sess ion</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
<td>Type of Gymnastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elderly Gymnastics</td>
<td>24</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Aerobic</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Leisurely Strolling</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that of the 40 respondents, the gymnastics frequency-based exercise program for the majority of the elderly did gymnastics 3 times a week which was 52.5%, based on the gymnastics duration the majority of the elderly exercised 20-60 minutes/session ie 85%, and based on the type of gym most of the elderly do elderly fitness exercises as much as 60%.

Frequency Distribution of Elderly Cognitive Functions Conducting Gymnastics

<table>
<thead>
<tr>
<th>Cognitive Function</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (≥26 point)</td>
<td>12</td>
<td>30.0</td>
</tr>
<tr>
<td>Negative (0-25 point)</td>
<td>28</td>
<td>70.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 shows that most of the respondents experienced impaired cognitive function as many as 28 people (70%).

Discussion
1. Characteristics of Respondents
   a. Age
   The results of the research conducted on 40 respondents found that the majority were in the elderly age category (60-74 years), as many as 36 people (90%). The results of the Pinilih study (2017), showed a positive relationship between age and decreased cognitive function. This happens because the increasing age results in changes in anatomy, such as the shrinking of the brain and biochemical changes in the central nervous system so that itself can cause a decline in cognitive function.

   b. Gender
   The results of research conducted on 40 respondents found that the majority of the elderly who were active in exercising were women, as many as 37 people (92.5%). The results of research conducted by Pinilih (2017), stated that women are more at risk of experiencing cognitive function decline. This is due to the role of endogenous sex hormone levels in changes in cognitive function. Estrogen receptors are found in areas of the brain that play a role in learning and memory functions, such as the hippocampus. Low levels of estradiol in the body are
associated with a decrease in general cognitive function and verbal memory.

c. Ethnic

The results of the research conducted on 40 respondents found that the majority of respondents were Minang people, namely 19 people (47.5%). This is due to the research location in Riau Province, where the majority of the population is Minang.

d. Marital Status

The results of research conducted on 40 respondents found the same number between married and widows, namely 20 people (50%).

According to Yuliati's research (2014), married elderly people have a higher average physical domain than widows. Elderly people who still have complete or married couples will influence the health condition of the elderly both physically and biologically. This is also in accordance with Mongisidi's (2013) study, showing that respondents who had been married and had children equal to or more than two had normal cognitive function tests.

e. Last Education

The results of research conducted on 40 respondents found that the highest number of respondents had high school education was 16 people (40%). Based on Mongisidi's research (2013), it was shown that respondents who had more than 9 years of education (high school, diploma and graduate) had normal cognitive function results. This is because education is one of the most important factors in preventing cognitive impairment.

f. Job

The results of research conducted on 40 respondents found that most worked as housewives as many as 29 people (72.5%). The results of the Mongisidi (2013) study show that work that emphasizes thinking ability has a major influence on the neuropathology of cognitive function disorders compared to work that emphasizes muscle strength.

Social involvement or adequate physical activity can affect neural synaptogenesis so that it can stimulate nerve branching in the hippocampus so that it can reduce the decline in cognitive abilities that increase the risk of dementia.

g. Type of Illness

The results of research conducted on 40 respondents found that most respondents experienced hypertension as many as 13 people (32.5%). Hypertension is one of the risk factors for impaired cognitive function in the elderly. Hypertension as a risk factor for vascular dementia, which is partly made possible through the occurrence of stroke with the size of lesions both large and small. Based on the results of a study by Masruroh (2014), states that increased blood pressure increases the risk of dementia in elderly men who have never been treated with antihypertensive drugs.

Cardiovascular disease is a risk factor for decreasing age-related cognitive function and dementia. Diabetes mellitus is one of the diseases associated with blood vessels and experienced by respondents as much as 12.5%. People with diabetes mellitus who are poor at controlling metabolism (sedentary hyperglycemia) can experience decreased cognitive function. Glucose is needed in all cognitive processes. The relationship between cognitive impairment in diabetes follows a U-shaped curve, with impaired cognitive function as a result of acute hyperglycemia and acute hypoglycemia (Masruroh, 2014).

h. Time Taking Gymnastics

The results of research conducted on 40 respondents found that the majority of respondents had exercised for more than 6 months as many as 37 people (92.5%). This shows that the longer the elderly follow gymnastics the better cognitive function. Active elderly people who routinely do gymnastics will increase physical fitness and prevent cognitive decline.
The level of fitness or the amount of physical activity during childhood and adolescence adults may have a long-term effect on the risk of cognitive impairment in the future. The results of the study show that fitness levels (low, medium, or high) at 18 years of age predict the risk of MCI and dimensions 42 years later in men. Low aerobic fitness at 18 years of age appears as a potential risk factor for future cognitive decline (Barnes, 2015).

2. Training Program

The results of research conducted on 40 respondents found that most respondents did gymnastics 3 times a week, as many as 21 people (52.5%), while for the duration of gymnastics, the majority of respondents did gymnastics for 20-60 minutes / session which was as many as 34 people (85%), and most of the respondents did the elderly fitness gymnastics as many as 24 people (60%).

The results of research conducted by Wahyuni (2016), stated that physical activity and exercise carried out regularly 3-5 times a week can help increase blood flow to the brain, thereby increasing the intake of nutrients in the brain which can guarantee the perfusion of strong brain tissue. The direct effect that occurs in the brain is the maintenance of nerve structures and can increase the expansion of nerve fibers in the brain and in the capillaries in the brain.

3. An overview of cognitive functions in the elderly who do gymnastics

The results of research conducted on 40 respondents found that most respondents experienced impaired cognitive function because the results of the questionnaire were less than 26 points, as many as 28 people (70%), while as many as 12 people (30%) did not experience cognitive impairment.

Basic cognitive functions consist of attention, working memory, long-term memory, and perception. A decrease in attention can have a broad effect on a person's ability to function adequately and efficiently in daily life. Working memory is associated with a decrease in various cognitive tasks, especially short-term memory. Short-term memory involves maintaining simple information in a short period of time but in the elderly it shows a minimal or no decrease in short-term memory (Glisky, 2007). Changes in cognitive abilities that occur in the elderly more to speed rather than ability.

This is in accordance with the results the researchers got when doing research with questionnaires. Elderly most of the difficulties in recalling words that have just been said and sometimes the attention of the elderly can be distracted by things around them.

According to Kurnianto (2015), psychological exercise can improve mood, reduce the risk of senility, and prevent depression. The majority of studies have shown that throughout the lifetime of humans, ranging from children to the elderly, higher fitness levels are associated with better performance on cognitive tasks (Barnes, 2015). Elderly who are active in exercising have better reasoning, memory, and reaction time than those who are lacking or never exercise. The thing that must be considered is the selection of the type of gymnastics that must be in accordance with the age and physical condition of the elderly (Dayamaes, 2013).

Conclusion

The results showed that the characteristics of the majority of respondents were in the elderly category (60-74 years) as much as 90%, female gender as much as 92.5%, Minang tribe as much as 47.5%, marital status equal to 50%, final education as high as 40%, the work of housewives as much as 72.5%, the type of illness suffered by hypertension as much as 32.5%, and the duration of taking exercise more than six months was 92.5%. The training program found that most of them did gymnastics three times a week as much as 52.5%, the
duration of gymnastics was 20-60 minutes per session as much as 85%, and the type of elderly fitness gymnastics as much as 60%. The results of the study for the description of cognitive function in the elderly who do gymnastics show that most respondents experience impaired cognitive function due to the value of the questionnaire is less than 26 by 70%.

**Suggestion**
1. Benefits for Nursing
   The results of this study can be a source of information in the development of nursing science and as a reference material in the development of science especially in the field of gerontik and community.
2. Benefits for Health Center
   The results of this study are expected to be a source of information and input for health centers regarding the benefits of gymnastics for cognitive function of the elderly and useful for nurses in providing health promotion about the benefits of gymnastics for cognitive function of the elderly.
3. Benefits for the Community
   The results of this study are expected to provide knowledge and information to the public regarding the benefits of gymnastics as one of the activities to prevent impaired cognitive function in the elderly.
4. For Further Researchers
   The results of this study are expected to be used as basic data and additional information to develop further research and develop this research by linking to other variables, especially ways to prevent impaired cognitive function in the elderly.

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---

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2. **Arneliwati:** Lecturer in the Department of Community Nursing, Faculty of Nursing, University of Riau, Indonesia
3. **Siti Rahmalia Hairani Damanik:** Lecturer in Department of Medical Surgical Nursing, Faculty of Nursing, University of Riau, Indonesia

**References**


THE EFFECT OF INDIVIDUAL HEALTH EDUCATION USING FLIPBOOK ON SELF-EFFICACY OF HYPERTENSIVE PATIENTS IN CONTROLLING DIET

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Abstract

Objective: Health education is one of education intervention to help hypertensive patients improve their health by increasing their knowledge and behavior. Self-efficacy is a principle connection between knowledge and behavior and also can affect the choice of behavior. This research was purposed to determined the effect of individual health education using flipbook on self-efficacy of hypertensive patients in controlling diet.

Method: The 34 respondents devided into two categories, randomly assigned to a control and an experimental group. Patients in experimental groups received information about Dietary Approaches to Stop Hypertension (DASH) diet. The measuring tool was a self-efficacy questionnaire which has been tested for validity and reliability. The analysis of this research were univariate and bivariate analyzes using t-test. Results: Self-efficacy was increased in experimental groups after giving health education using flipbook with p value (0,000) < α (0,05). Conclusions: The was an influence of individual health education using flipbook on self-efficacy of hypertensive patients in controlling diet. This research recommend health providers to provide individual health education using flipbook media as one of intervention in maintance patients health status.

Keywords : Flipbook, health education, hypertension diet, self-efficacy

Introduction

Hypertension or High blood pressure is a condition in which the blood pressure is persistently elevating out of normal situation (Yogiantoro, 2015). According to American Heart Association (AHA) American College of Cardiology (ACC) (2017), hypertension as a blood pressure higher than systolic 130 over diastolic 80 millimeters of mercury (mmHg) (Whelton dkk., 2017).

Global Prevalence of hypertention is always increasing. Adults with hypertension are about 594 million in 1975. Its number increased to 1.13 billion or around 22.1% in 2015 (World Health Organization, 2017). Based on the data of NCHS (National Center for Health Statistics) (2017), that in 2015-2016, the number of adults with hypertension reached 29.0% and increased by each age classifications (Fryar, Ostchega, Hales, Zhang, & Moran, 2017). The Result of Basic Health Research (RISKESDAS) (2013), showed that hypertension prevalence in Indonesia is about 26.5% for adults at age above 18 years (Kemenkes RI, 2013).

One of the preventive effort that can be applied by people with hypertension is healthy lifestyle (Kemenkes RI, 2012). Hypertension diet is one of the way to reduce and maintain blood pressure to be normal. Hypertension diet is also beneficial to reduce other risks such as overweight, cholesterol level, and uric acid on blood (Wulandari, 2009).

In addition to promoting the DASH (Dietary Approaches to stop Hypertension) diet, which is rich in fruits, vegetables,
whole grains, and low-fat dairy products, the updated guideline recommends reducing sodium intake and increasing potassium intake to reduce Blood Pressure (Kurniadi & Nurrahmi, 2015).

The role of nurse to influence patients with hypertension to apply hypertension diet control is by giving health education. (Notoatmodjo, 2012b). Giving health education purpose to change patients hypertension’s behavior. One of the determining factor or determinants in behavior change is self-efficacy (Induniash & Ratna, 2017). Before the occurrence of behavioral changes in patients with hypertension, first seen the extent of self-efficacy of patients with hypertension so that it can affect the behavior of hypertensive patients in controlling hypertension diet.

Self-efficacy means belief about the ability they have to achieve a goal that gives influence for them (Salam, 2017). According to Hendiarto & Hamidah (2014), self-efficacy can motivate people where the stronger the self-efficacy means the more large individuals to adopt, maintain, and improve healthy behavior.

Based on the results of interviews for 10 hypertensive patients in a preliminary study conducted in the work area of Payung Sekaki Public Health Center, get there still from hypertension sufferers who have never received information about hypertension and hypertension diet diet by using flipbook media and only get information and information from the doctor where, friends and family who have received information about hypertension. Five of several hypertensive sufferers said that dietary settings for hypertensive patients who applied were still hesitant to control their health because hypertension had to be done every day. They also said that to fulfill their special dietary needs they wanted to do because they had to change food from family members and they would do other events like them, they would spend a lot of food containing coconut milk. Five ordinary people with a hypertensive diet can control their blood pressure and they still cannot find pain in the head, neck pain which is one of the signs and symptoms of hypertension. They will take drugs and balance with a hypertensive diet.

The purpose of this study was to analyze the effectiveness of individual health education by using flipbook media on self-efficacy of hypertensive sufferers in controlling diet.

Methods
This study uses a quasy experiment design with non randomized pretest posttest control group design. The sampling technique uses purposive sampling, which is sampling based on consideration in accordance with the criteria desired by the researcher. The instrument used is a questionnaire that has been tested for validity and reliability which amounts to 16 statements of self-efficacy in controlling diet. The study was conducted in the Working Area of Payung Sekaki Public Health Center in Pekanbaru City in June-July 2018. The sample was used by 34 people.

Result
A. Univariate Analysis
1. Respondent characteristics and supporting factors for self-efficacy

Table 1
Distribution of Respondent Characteristics (n=34)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experiment group</th>
<th>Control group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Age:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle age (45-59 years)</td>
<td>7</td>
<td>41,2</td>
<td>8</td>
</tr>
<tr>
<td>Eldery (60-74 years)</td>
<td>8</td>
<td>47</td>
<td>9</td>
</tr>
<tr>
<td>Old age (75-90 tahun)</td>
<td>2</td>
<td>11,8</td>
<td>0</td>
</tr>
<tr>
<td>Count:</td>
<td>17</td>
<td>100</td>
<td>17</td>
</tr>
</tbody>
</table>

| Gender:            |       |
|                   | N    | %   | n   | %   |
|Male               | 7    | 41,2| 11  | 64,7| 18 | 52,9 |
|Female             | 10   | 58,8| 6   | 35,3| 16 | 47,1 |
|Count:             | 17  | 100 | 17  | 100| 34 | 100 |
Table 2
Respondent Distribution based on Self-efficacy Supporting Factors (n = 34)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experiment group</th>
<th>Control group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Lasr education:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>6</td>
<td>35,3</td>
<td>5</td>
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<td>SMP</td>
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<td>29,4</td>
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<tr>
<td>SMA</td>
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<td>35,3</td>
<td>7</td>
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<tr>
<td>Pendidikan terakhir</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Count:</td>
<td>17</td>
<td>100</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 3
Distribution of mean Self-efficacy Values for Hypertensive Patients Before and After Intervention Given to Experimental Groups and Control Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experiment group</th>
<th>Control group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>17</td>
<td>43,65</td>
<td>3,690</td>
</tr>
<tr>
<td>Post test</td>
<td>17</td>
<td>46,82</td>
<td>3,575</td>
</tr>
<tr>
<td>Self-efficacy control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>17</td>
<td>42,12</td>
<td>3,389</td>
</tr>
<tr>
<td>Post test</td>
<td>17</td>
<td>42,00</td>
<td>2,398</td>
</tr>
</tbody>
</table>

Table 5
Difference in Mean Self-efficacy Value of Hypertensive Patients in Controlling Diet Before and After Providing Individual Health Education in Experimental Groups and Control Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy experiment group:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>43,65</td>
<td>3,17</td>
<td>3,690</td>
<td>0,012</td>
</tr>
<tr>
<td>Post test</td>
<td>46,82</td>
<td></td>
<td>3,575</td>
<td></td>
</tr>
<tr>
<td>Self-efficacy control group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre test</td>
<td>42,12</td>
<td>0,12</td>
<td>3,389</td>
<td>0,840</td>
</tr>
<tr>
<td>Post test</td>
<td>42,00</td>
<td></td>
<td>2,398</td>
<td></td>
</tr>
</tbody>
</table>

Table 6
Ratio of Average Self-efficacy of Hypertensive Patients in Controlling Diet After Given Individual Health Education Using Flipbook Media in Experimental Groups and Control Groups

<table>
<thead>
<tr>
<th>Self-efficacy of hypertensive patients</th>
<th>Mean</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment group</td>
<td>46,82</td>
<td>3,575</td>
<td></td>
</tr>
<tr>
<td>Control group</td>
<td>42,00</td>
<td>2,398</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Discussion

A. Characteristics of Respondents

1. Age of respondent

Researchers divided the age of respondents into 4 categories of groups based on age division, according to WHO, namely middle age (45-59 years), elderly (60-74 years), elderly (75-90 years), and very old age (> 90 years) The results of the analysis of the age characteristics of respondents conducted on 34 respondents, obtained that half the age of respondents in the elderly (60-74 years) is 17 people (50%).

According to Iswari, Windyastuti, & Priambodo (2017) that one of the factors that cannot be modified by the occurrence of hypertension is age, where the more a person ages, the risk of hypertension will also increase. This is consistent with the
theory that hypertension is more common in people aged 45 years and over.

2. Gender of the respondent
The results of research conducted on 34 respondents, obtained the majority of respondents male sex is 18 people (52.9%). The results of this study were supported by Kartikasari (2012) research which showed that 47.2% of respondents male sex had more hypertension than those without hypertension and were at risk of developing hypertension 3,052 times compared to women. According to Iswari, dkk (2017) said that the possibility of hypertension in men due to smoking habits, where smoking is one of the factors causing the risk of hypertension.

3. Last respondent's education
The results of the study conducted on 34 respondents, obtained the respondents' level of education is mostly high school with the number of 13 people (38.2%). According to Notoatmodjo (2012), said that one of the factors that affect a person's health is the level of education. Education is closely related to knowledge and not one of the causes of hypertension, but one's education will affect a person's lifestyle.

The level of high school education is a high level of education, according to Arisandi (2016) said that the better or the higher the level of education of a person, they have more ability to maintain his lifestyle so that he remains healthy, such as maintaining and adhering to a hypertension diet.

4. Respondent's work
The results of the study on 34 hypertensive patients showed that most respondents were as housewife as many as 14 people (41.2%). According to Pramestutie & Silviana (2016) said that this type of work is closely related to physical activity carried out by a person, where physical activity can affect the occurrence of hypertension. Working as a housewife has mild physical activity so it has a higher risk factor for hypertension, besides having other risk factors such as stress that can trigger an increase in sympathetic nerve activity that can trigger an increase in one's blood pressure.

5. The duration of suffering from hypertension
The results of research conducted on 34 respondents, the majority of respondents have experienced hypertension more than 5 years, as many as 22 people (64.7%). According to Saragih, 2017) explains that the long condition of high blood pressure will result in the workload of the heart and arteries. Hypertension that does not get good treatment will cause various complications. Complications that arise depending on the magnitude of the increase in blood pressure and the length of the condition of hypertension occurs (Kemenkes RI, 2017).

B. Differences in self-efficacy in hypertensive patients in controlling diet
1. Experimental Group
The results of the analysis of the effectiveness of health education individually using flipbook media on self-efficacy of hypertensive patients in controlling the diet has known the mean value of the results after the intervention has increased, this is because in the experimental group given individual health education about the concept of hypertension and hypertension diet during approximately 30 minutes using flipbook media.

Statistical test results using paired-samples t test, test in the experimental group before and after being given an individual health education obtained p value (0.012) <α (0.05) and the difference in the mean self-efficacy value of pre-test and post-test is 3.17 so that there is an increase in self-efficacy in hypertensive patients in controlling the diet after being given an individual health education using flipbook media.
According to Kamtono, Nurhayati, & Wulandari (2016) health education has a significant effect on increasing one's self-efficacy. The provision of health education will help someone in overcoming the problem and they can realize their goal to behave healthily, so that the higher the goal, the higher the self-efficacy of that person (Tobergte & Curtis, 2013). According to Iswari dkk., (2017) said that respondents who have high self-efficacy about a disease experienced will be more easily adhere to advice and advice from health workers as well as possible so that hypertension is not continued or cause other complications.

2. Control group

Based on the results of statistical tests in the control group, there was no effect before (pre test) and after (post test) without being given individual health education using flipbook media to obtain self-efficacy of hypertensive patients in controlling diet with p value 0.840> α (0.05) which can be concluded that there is no increase in self-efficacy.

The absence of an increase in self-efficacy of hypertensive patients in the control group in controlling the diet so that respondents were hampered to obtain information properly from this individual health education activity, even though they only received health education after post test self-efficacy and previously also possible health workers had given information about hypertension diet.

C. Ratio of self-efficacy of hypertensive patients after being given individual education in the experimental group and the control group without being given health education

Based on the results of statistical tests obtained the mean post test self-efficacy in the experimental group was 46.82 and 42.00 in the control group. The results of the analysis obtained p value (0.000) self-efficacy <α (0.05), it can be concluded that there is a significant difference in mean self-efficacy of hypertensive patients in controlling diet between the experimental group and the control group. After being given individual health education using flipbook media, self-efficacy of hypertensive patients in the experimental group increased.

Self-efficacy will affect someone in thinking, feeling, motivating themselves, acting and making decisions. A person who has high self-efficacy in him will make him better in maintaining his health (Salam, 2017).

Based on research conducted by Novitasari, Murhayati, & Nurhayati (2016) which states that the provision of health education is very influential in improving one's self-efficacy. Based on the theory, this is because there are several factors that influence a person's self-efficacy, namely mastery experience (mastery of experience), vicarious experiences (experiences of others), social persuasion (social persuasion), and physiological and emotional states (physiological conditions and emotional).

According to Kamtono, Nurhayati, & Wulandari (2016) so that the goal of providing health education is achieved, it must pay attention to various things, one of which is the media and methods. The method used by researchers in this study is individual health education. Health education conducted individually can make respondents focus more on paying attention to the information conveyed so that the acceptance of respondents will be better (Kurnianingtyas, 2017).

According to Induniasih & Ratna (2017) said that the information conveyed in conducting counseling can be influenced by the methods and media used, where the methods and media for delivering information can have a significant effect on health education. The media used in health education can help respondents understand the material presented by researchers. In this study, the
media used by researchers in providing health education using flipbook media, where the media can facilitate researchers in clarifying the contents of the message to be conveyed, but also presented in stages to provide time for respondents to understand the content of the material. This can be seen from the results of the analysis above which showed an increase in self-efficacy of hypertensive patients in the experimental group after being given individual health education using flipbook media.

**Conclusion**

Results showed that half of the respondents were in the age range 60-74 years 50%, the majority of the last education was high school 38.2%, the majority of respondents were male 52.9%, the majority of respondents' work was IRT or not working 41.2% , and most respondents suffered from hypertension more than 5 years 64.7%..

The results of the statistical test measurement of the mean pre-test self-efficacy in the experimental group was 43.65 after being given individual health education using flipbook media experienced a significant increase in post-test self-efficacy to 46.82. While the mean pre test in the control group was 42.12 and the post test of the control group was 42.00.

Based on the results of statistical tests in the experimental group found a significant difference between mean self-efficacy before and after being given health education using flipbook media. In this study it can be concluded that individual health education using flipbook media on self-efficacy of hypertensive patients in controlling the diet effectively increases the self-efficacy of hypertensive patients with p value self-efficacy (0.000) <α (0,05).

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**References**


THE COMPARISON OF WARM WATER FEET-SOAKING HYDROTHERAPY AND ACUPRESSURE MASSAGE ON THE BLOOD PRESSURE OF PRIMARY HYPERTENSION PATIENTS

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Abstract

Objective: Hypertension is a condition when the blood pressure rises chronically above 140/90 mmHg. If it isn't treated in the long-term basis, hypertension can cause stroke and coronary heart disease. Nonpharmacological therapy that can be used to lower the blood pressure is warm water feet-soaking hydrotherapy and acupressure massage. The purpose of this study was to compare warm water feet-soaking hydrotherapy and acupressure massage on the blood pressure in primary hypertension. Method: This research used quasi experimental design with time series design approach. The research was conducted at Panti Sosial Tresna Werda (PSTW) Khusnul Khotimah Pekanbaru with 32 samples with the criteria for inclusion of the elderly of 60 years, in the pra hypertension and hypertension stage 1 and 2, divided into 16 intervention group I and 16 intervention group II with purposive sampling technique. The intervention group I was given warm water feet-soaking hydrotherapy for 15 minutes and the intervention group II was given an acupressure massage for 30 seconds. The measuring instrument is a digital sphygmomanometer and observation sheet. The analysis used was univariate analysis to see the frequency and percentage, and bivariate analysis with Wilcoxon Sign test and Mann Whitney test. Results: The results showed the average lowering of systole and diastole blood pressure on intervention group I of 13.45 mmHg and 7.72 mmHg and the intervention group II of 6.5 mmHg and 2.49 mmHg. Statistical test results for intervals I and II showed mean difference of blood pressure systole with p value (0.033) < (0.05) and diastole with p value (0.038) < (0.05). Conclusions: That warm water feet-soaking hydrotherapy was more effective than acupressure massage to lower the blood pressure on primary hypertension patients.

Keywords: Primary hypertension, warm water feet-soaking hydrotherapy, acupressure massage, blood pressure

Introduction

High blood pressure (hypertension) is a condition when the pressure in the blood vessels increases chronically that is above 140/90 mmHg. Hypertension that is often found is primary hypertension with 95% of cases and the cause has not been identified (Kozier, 2010). According to the World Health Organization (WHO) in 2013, hypertension is one of the causes of premature death worldwide that kills nearly 9.4 million people every year. The prevalence of hypertension in the Southeast Asia region was 36%. In Indonesia the prevalence of population with hypertension nationally is 30.9% (Ministry of Health, 2017).

Hypertension also increases with age (Riskesdas, 2013). Increasing age results in susceptibility to hypertension because physiological function has decreased due to aging process.
Hypertension if left untreated for the long term will lead to stroke and coronary heart disease. Therapy for reducing hypertension could be pharmacological therapy (drugs) and non-pharmacological therapy (Hartono & Gunardi, 2013). Non-pharmacological therapy is used to reduce blood pressure without drug dependence and side effects such as foot soaking hydrotherapy with warm water and acupressure massage.

Foot soaking hydrotherapy with warm water is given for 15 minutes, with the aim to improve blood circulation in the legs that will spread to the body (Syaifuddin, 2011).

Acupressure massage is performed at the GV 20 Baihui point which is located 1.5 cun behind the top of the head. To reduce hypertension, press on the top of the head 30 times, performed in one cycle. The trick is to take a straight line parallel to the nose and the meeting between the left and right ears. Massage is done by pressing using the thumb (Hartono, 2012). In the circulatory system, acupressure massage can improve blood flow and cause a decrease in heart rate which can reduce blood pressure.

**Method**

This study uses quasi experiment with time series design, observations carried out more than once, involving two groups namely hydrotherapy group and acupressure group. The study was conducted in PSTW Khusnul Khotimah Pekanbaru with a total sample of 32 respondents.

Sampling using purposive sampling with inclusion criteria, namely elderly aged ± 60 years, in prahipertensive conditions, stage 1 hypertension and stage 2 hypertension, can communicate well and are willing to become respondents, do not have other diseases such as kidney disease, stroke, brain injury and does not suffer from skin disease or skin and foot and head injuries, history of epilepsy, fever and water phobia.

Systole and diastolic blood pressure used is the result of blood pressure measurements listed in the digital sphygmomanometer. Data analysis used was univariate analysis using frequency and bivariate analysis using Wilcoxon Sign test and Mann Whitney test to see the effect of foot soaking hydrotherapy with warm water and acupressure massage on blood pressure and see which interventions are more effective.

**Results**

<table>
<thead>
<tr>
<th>Variabel</th>
<th>N</th>
<th>Mean (mmHg)</th>
<th>SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hydrotherapy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systolic: Pre test</td>
<td>16</td>
<td>147,08</td>
<td>9,76</td>
<td>0,000</td>
</tr>
<tr>
<td>Systolic: Post test</td>
<td>16</td>
<td>133,63</td>
<td>8,47</td>
<td>0,000</td>
</tr>
<tr>
<td>Diastolic: Pre test</td>
<td>16</td>
<td>88,98</td>
<td>5,16</td>
<td>0,001</td>
</tr>
<tr>
<td>Diastolic: Post test</td>
<td>16</td>
<td>81,26</td>
<td>5,15</td>
<td>0,001</td>
</tr>
<tr>
<td><strong>Acupressure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systolic: Pre test</td>
<td>16</td>
<td>144,96</td>
<td>8,79</td>
<td>0,000</td>
</tr>
<tr>
<td>Systolic: Post test</td>
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<td>138,46</td>
<td>7,99</td>
<td>0,000</td>
</tr>
<tr>
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<td>87,38</td>
<td>6,05</td>
<td>0,008</td>
</tr>
<tr>
<td>Diastolic: Post test</td>
<td>16</td>
<td>84,89</td>
<td>5,53</td>
<td>0,008</td>
</tr>
</tbody>
</table>

Table 1 shows the results of the test *Man-Whitney* showed that the average systolic blood pressure after intervention in the hydrotherapy group was 133.63 mmHg while the average systolic blood pressure after intervention in the acupressure group was 138.46 mmHg. There was a difference in the average distribution of systolic blood pressure in the hydrotherapy group and the acupressure group with a difference of 4.83 points. Statistical test results obtained *p value* (0.033) <α (0.05).
The average diastolic blood pressure after intervention in the hydrotherapy group was 81.26 mmHg while the average diastolic blood pressure after intervention in the acupressure group was 84.89 mmHg. There was a difference in the average distribution of diastolic blood pressure in the hydrotherapy group and the acupressure group with a difference of 3.63 points. Statistical test results obtained $p$ value $(0.038) < \alpha (0.05)$.

**Discussion**

Hypertension often occurs in the elderly because blood pressure tends to increase with age. These changes are still physiological, but make the elderly more vulnerable to disease. The peripheral pulse of the elderly will be weaker in the lower extremity, which makes the elderly often complain of cold feet (Potter & Perry, 2010).

The trigger factor that causes hypertension is stress. Stress felt comes from the environment, where the elderly feel unnoticed by the family (lack of family support) because they live in the social institution. This causes an increase in emotions experienced by the elderly, making the sympathetic nervous system become more active (Kozier, 2010).

In the intervention group I was given foot soaking hydrotherapy with warm water over the ankles for 15 minutes starting at 07.00 to 12.00 WIB, carried out 3 times in 1 week. The temperature of warm water used is $36^\circ - 37^\circ$C or slightly above body temperature. When given foot soaking hydrotherapy with warm water, initially a warm feeling arises, then the feeling of warmth is not felt anymore and when it comes out of the water, a sense of warmth will return. This is because the body is fully adapted to the new skin temperature (Syaifuddin, 2011).

The warm conditions given in the feet-soaking create a relaxation effect that stimulates the release of endorphins, thereby reducing the sympathetic nerves and increasing the parasympathetic stimulus that secretes acetylcholine which causes dilatation of blood vessels (Muttaqin, 2009).

Vascular vasodilation causes the heart rate and contents of the joints to decrease and cardiac output and total peripheral resistance also decrease, causing blood flow to increase through the blood vessels and blood pressure to fall to normal (Lambeck, 2014).

In the intervention group II an acupressure massage was given. Acupressure massage is a complementary therapy that is useful for balancing the nervous system and endocrine system. In this study, acupressure massage was given at point GV 20 or DU-20 Baihui which was located 1.5 cun behind the top of the head. Emphasis is made using the thumb for 30 times in one cycle, given 3 times a week.

The benefits of acupressure massage at this point are to overcome headaches. Headache occurs because the blood supply to the brain is reduced or inadequate which causes anaerobic metabolism (not using oxygen for metabolism).

Acupressure massage given at the GV 20 Baihui point can improve and improve blood circulation which causes the oxygenation process to become smooth so that headaches become reduced and can also reduce blood pressure. Emphasis on acupressure points will affect the physiological changes of the body and can affect a person's mental and emotional state (Hartono, 2012).

The results of statistical tests using *Mann Whitney*, there were differences in systolic blood pressure after being given foot soaking hydrotherapy with warm water and acupressure massage of 4.83 points with $p$ value $(0.033) < \alpha (0.05)$ while the difference in diastolic blood pressure was 3, 63 points with $p$ value $(0.038) < \alpha (0.05)$.

This means that there are significant differences between the mean blood
pressure of systole and diastol in the hydrotherapy group and the acupressure group so that it can be concluded that foot soaking hydrotherapy with warm water is more effective than acupressure massage on blood pressure reduction in patients with primary hypertension.

**Conclusion**

Based on the results of the test Wilcoxon in the group given foot soaking hydrotherapy with warm water, the average systolic blood pressure decreased by 13.45 mmHg with \( p \text{ value} (0.000) < \alpha \) (0.05), and the average diastolic blood pressure decreased as much as 7.72 mmHg with \( p \text{ value} (0.001) < \alpha \) (0.05).

In the acupressure massage group, the average systolic blood pressure decreased by 6.5 mmHg with \( p \text{ value} (0.000) < \alpha \) (0.05), and the average diastolic blood pressure decreased by 2.49 mmHg with \( p \text{ value} (0.008) < \alpha \) (0.05). From these results it can be concluded that foot soaking hydrotherapy with warm water and acupressure massage can reduce blood pressure.

Test results in the Mann Whitney has difference in mean systolic blood pressure of 4.83 points with \( p \text{ value} (0.033) < \alpha \) (0.05), the difference in the average diastolic blood pressure is 3.63 points with \( p \text{ value} (0.038) < \alpha \) (0.05). This means that there is a significant difference from the average blood pressure between the hydrotherapy group and the acupressure group, and it can be concluded that Ha1 is accepted, namely foot soaking hydrotherapy with warm water is more effective in lowering blood pressure than acupressure massage in patients with primary hypertension.

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