# Integrated Management Chilhood Illness (IMCI) in Primary Health Care: Literature Review

l<sup>st</sup> Totok Wahyudi lDepartment of Nursing Science Program Duta Bangsa University Surakarta, Indonesia totok wahyudi@udb.ac.id

4<sup>th</sup> Susi Lastianingsih Department of Nursing Science Program Duta Bangsa University Surakarta, Indonesia susilastianingsih@gmail.com 2<sup>rd</sup> Endrat Kartiko Utomo Department of Nursing Science Program Duta Bangsa University Surakarta, Indonesia endrat kartiko@udb.ac.id

5<sup>th</sup> Panji Azali Department of Nursing Science Program Kusuma Husada University Surakarta, Indonesia azalipanji@gmail.com

Abstract—Children death toll throughout the country in 2011 reaching 6.9 million, recorded 1900 deaths of children in a day and 800 deaths of children per hour. About 80% of deaths occur children in developing countries. The efforts of the World Health Organization (WHO) and the Ministry of health Indonesia (Health Department Indonesia) to lower mortality and pain globally is to introduce the Sick Child Initiative (SCI) or Integrated Management Of Childhood Illness (IMCI), namely the decisionmaking steps in managing childhood illness. In an attempt to increase the scope of discovery and enhances the life-threatening disease system on children, the Department of health has implemented an Integrated Management Childhood Illness (IMCI) in primary health care units. The study of this literature review to identify and explore the role of nurse practitioners so as to improve readiness in the integrated management childhood illness (IMCI). Literature search conducted by doing searches journals from both the international and national journals. Searches performed through two electronic data base i.e. PubMed and Google Scholar with the use of the key word are IMCI\*, integrated management childhood illness, Primary Health care, MTBS\*, puskesmas, management terpadu balita sakit. Respondents used in the journal obtained is a nurse, children and parents of children. There is no specific data that describes the role, competence, training and level of education owned integrated management method in nursing a toddler sick (IMCI, Of all the articles showed that the role of the nurse in the readiness of implementing integrated management childhood illness (IMCI) in primary health care is already quite active views of the IMCI followed training and work experience having before. Based on the above discussion of ten literature obtained that implementation of the IMCI at any primary health care in each country mainly in Indonesia still do not meet the standards in the granting of health services on a children sick

Keywords—Integrated Managament Childhood Illness, Nursing, IMCI

#### I. INTRODUCTION

Every three minutes, one child under five years old dies in Indonesia. In addition, every hour a woman dies while giving birth or in connection with pregnancy [1]. Mother and child are family members who need to get priority in the implementation of health efforts, because mothers and children are a vulnerable group to the situation of the family and their surroundings in 3<sup>rd</sup> Fakhrudin Nasrul Sani Department of Nursing Science Program Duta Bangsa University Surakarta, Indonesia fakhrudin.n.s1611@gmail.com

6<sup>th</sup> Diva Agustinaningrum Department of Nursing Science Program Duta Bangsa University Surakarta, Indonesia agustinadiva@gmail.com

general. So that decisions on health status and performance of maternal and child health efforts are important to make [2].

Health efforts for children are very important because neonatal mortality contributes to 59% of infant mortality. Based on the results of the survey (IDHS) in 2021, the neonatal mortality rate (IMR) in 2012 was 19 per 1,000 live births. This figure is the same as the IMR based on the 2007 IDHS and only decreased by 1 point compared to the 2002-2003 IDHS, namely 20 per 1,000 live births [2].

The explanation above illustrates the high prevalence of infant and neonatal mortality rates, the causes of which are diseases such as diarrhea, pneumonia, malnutrition, fever and other chronic or acute diseases. Research conducted by the Ministry of Health in 2013 found 2.4% of pneumonia sufferers in children under five based on diagnosis, and 18.5% of symptoms per 1000 births. And the mortality rate caused by pneumonia in children under five was 1.19% and in the infant group was 2.89%. Whereas for diarrhea, the incidence of diarrhea was 6.7% in the under-five group, the death rate from daire in 2013 was 1.08% [3].

The results of Riskesdas 2007 that the prevalence of malnutrition among children under five was 18.4%, and in 2010 it was 17.9% and increased in 2013, namely 19.6%. This result illustrates that there are still cases of malnutrition in Indonesia, especially in the provinces of East Nusa Tenggara and Papua. Meanwhile, the areas of Bangka Belitung, East Kalimantan, Central Kalimantan, and Central Sulawesi tend to experience a decline [4].

The need for a program to reduce or reduce the incidence of mortality in children needs to be done, the government, especially the ministry of health, must make a policy in the form of a program. This program was realized in 1995 which was pioneered by WHO (World Health Organization) which is called Integrated Management of Child Illness or in Indonesia it is known as IMCI (Integrated Management of Sick Babies). This program is focused on the incidence of child mortality caused by diseases such as diarrhea, acute respiratory infections, malaria, and malnutrition or malnutrition [5]. From the explanation above, the researcher is interested in conducting a literature review to review IMCI, how it is implemented, what things support IMCI.

### II. Methode

P = Nurse

I = Integrated Management Childhood Illness (IMCI)

C = -

O = Improved services in Primary health care

Based on the PICO, the questions of research in this study of literature review: How the role of nurses in improving services in primary health care by using the method of IMCI. Literature search conducted by doing searches journals from both the international and national journals. Searches performed through two electronic data base i.e. PubMed and Google Scholar with the use of the key word are IMCI\*, integrated management childhood illness, Primary Health care, MTBS\*, puskesmas, management terpadu balita sakit.

#### III. DISSCUSSION AND RESULT

a. Impelemented

IMCI (Integrated Management of Child Illness or in Indonesia known as IMCI (Integrated Management of Sick Babies) is a strategy introduced by WHO in 1995 to reduce the incidence of child and under-five mortality. This strategy is very effective in its implementation, as explained in background that IMCI or IMCI can reduce mortality rates in children and toddlers. Research conducted by Abdul Mu'is dan Amatus Yudi Ismanto [6] shows that there is a relationship between the implementation of integrated management of diarrhea under five years of age (IMCI) with diarrhea recovery in toddlers at the Shoulder Health Center in Manado City.

In its implementation, this strategy includes promotional, preventive, curative and rehabilitative activities. IMCI is focused on case management by looking at clinical signs and impirical therapy that can be carried out by doctors, nurses, midwives, and other health workers who in practice are carried out in primary services such as polyclinics, health centers, clinics, and hospitals. The process contained in this strategy according to the IMCI Handbook (2005) includes assessment, classification, which are interrelated and inseparable.

The implementation of IMCI must of course run comprehensively and simultaneously, especially for Indonesia itself as a developing country. This strategy is very influential in achieving the health status of children. Research conducted by Gera et al [5] explained that 74 puskesmas in West Java have implemented this IMCI strategy, but only 64% have applied it overall to children who come to the puskesmas. As explained in the background of the research conducted by Ahmed Mitchell, & Hedt [7], it is explained that IMCI is proven to be effective in improving the quality of child health services, increasing health care cost savings, and possibly reducing child mortality in developing countries. However, many countries still experience significant training, health system, political and financial constraints on implementation.

b. Skill and Knowledge

The skills and knowledge of health workers also influence the IMCI strategy, because health workers have good skills and knowledge that will provide good service and results. Research conducted by Hemant D. Shewade & Arun K. Aggarwal & Bhavneet Bharti [8] which aims to assess the ability and diagnostic skills of labor (ANMs / AWWs) in counseling for neonatal guidelines and sick children based on integrated management neonatal and childhood disease (IMNCI) and the Integrated child development scheme (ICDS). The result is this study explains that the performance of health workers has the ability to detect diseases in children based on age groups and their skills are still under comprehensive review of all components.

The results of research conducted by Zulaikha [9] explained that 73.9% of health workers had good knowledge of the IMCI approach in cough management, but in the implementation process 87% of health workers showed poor performance. The results of this study also explain that there is a weak correlation between knowledge and the quality of IMCI implementation at the primary health care level.

c. Motivation and Commitment

Apart from the skills and knowledge of health workers in implementing IMCI, commitment and motivation are also needed. Because there are many cases in the field of IMCI implementation, there are still insufficient health workers in implementing this strategy. Lack of commitment from health workers will affect the expected results in reducing child mortality or children's health status. In line with research conducted by Putri [10], it is explained that the commitment of health workers in implementing the IMCI strategy is quite high (63.5%) in Cilacap district.

The results of the same research are in Kulonprogo district conducted by Handayani [11] which explains that leadership and facilities influence the IMCI implementation process. As for self-motivation, research conducted by Lange et al [12] explained that one of the factors that influence non-compliance in the implementation of MTBS by using The MTBS guidelines itself is a lack of motivation in believing the importance of following the MTBS instructions or guidelines.

## d. Training

Training is one of the factors that influence the implementation of IMCI, because the training provided to health workers will affect the level of knowledge and ability of health workers in implementing IMCI. In line with research conducted by Adnan [13], it was explained that the ability of health workers who had attended training was better than health workers who did not attend training with an average of 14.3%.

Research conducted by Maureen Mayhew, Paul Ickx, William Newbrander, Hedayatullah Stanekzai, Sayed Alisha Alawi [14] results illustrate that there is no significant difference between health workers who carry out training for 7 days and health workers who carry out training for 11 days.

An understanding of the implementation of IMCI is very important and affects the expected results, and it is necessary to introduce it early to nursing students so that later regeneration and implementation of IMCI can continue. Research conducted by Al-Araimi & Langrial [15] entitled A Hypothetical Model to Predict Nursing Students' Perceptions of the Usefulness of Pre-Service Integrated Management of Childhood Illness Training which aims to test a hypothetical model in predicting nursing students' perceptions of the benefits of IMCI training and its application in clinical practice. The results of this study indicate that nursing students consider this IMCI training very useful and will apply it to clinical practice.

e. Facilities and Human Resources

Supporting facilities can also influence good results in the implementation of the IMCI strategy, with this facility health workers can carry out IMCI well. The supporting facilities, for example, are a special room for IMCI, and sufficient human resources. In line with the research conducted by Vimala [16] in Kuningan District, it was found that the factors affecting IMCI coverage were the level of education, training held, length of service for health workers, and health service facilities. Nsabagasani et al [17] the implementation of IMCI in Uganda is constrained by funding and human resources. Health workers find it difficult to provide drugs in the form of tablets and capsules for children under 5 years, so health workers in Uganda prefer to provide oral liquid dosage formulations, suppositories and injections.

Research conducted by Husni, A, & Ansar [18] in Makassar explained that human resources, funds, facilities and infrastructure had not been prioritized in the field, especially the puskesmas. From the results of this study it can be concluded that there are still facilities and human resources that have not been considered, even though to achieve good results in the implementation of IMCI is one of the factors that support the results.

## IV. COCLUSION

Efforts to reduce mortality in children and under-five have been introduced by WHO as a strategy, namely IMCI (Integrated Management Child Illness) or in Indonesia, better known as IMCI (Integrated Management of Child Illness). The implementation includes promotional, preventive, curative and rehabilitative activities. The process contained in this strategy is assessment and classification, which later on, this process will run simultaneously and cannot be separated. In its implementation, there are several factors that influence it. Among them are the abilities and knowledge of health workers, motivation, and training as well as supporting facilities. All of the above factors greatly influence the process and results of the IMCI strategy in reducing child and under-five mortality rates.

#### Reference

- UNICEF. (2012). Ringkasan Kajian : Kesehatan Ibu & Anak. UNICEF Indonesia, (Gambar 2), 1–2. https://doi.org/9870
- [2] Kementerian Kesehatan Republik Indonesia. (2015). Profil Kesehatan Indonesia 2015.
- [3] Kementerian Kesehatan RI. (2013). Profil Kesehatan Indonesia.
- [4] Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI. (2013). Riset Kesehatan Dasar.
- [5] Gera, T., Shah, D., Garner, P., Richardson, M., & Hs, S. (2016). Integrated management of childhood illness (IMCI) strategy for children under five (Review) summary of findings for the main comparison,(6).https://doi.org/10.1002/14651858.CD010123.pub2.ww w.cochranelibrary.com

- [6] Abdul Mu'is, Amatus Yudi Ismanto, F. O. (2014). Hubungan Penerapan Manajemen Terpadu Balita Sakit (MTBS) Diare Dengan Kesembuhan Diare Pada Balita Di Puskesmas Bahu Kota Manado, 1–8.
- [7] Ahmed, H. M., Mitchell, M., & Hedt, B. (2010). National implementation of Integrated Management of Childhood Illness (IMCI): Policy constraints and strategies. Health Policy, 96(2), 128–133. https://doi.org/10.1016/j.healthpol.2010.01.013
- [8] Shewade, H. D., Aggarwal, A. K., & Bharti, B. (2013). Integrated Management of Neonatal and Childhood Illness (IMNCI): Skill Assessment of Health and Integrated Child Development Scheme (ICDS) Workers to Classify Sick Under-five Children. The Indian Journal of Pediatrics, 80(6), 448–454. https://doi.org/10.1007/s12098-012-0835-4
- [9] Zulaikha, F. (2016). Hubungan Tingkat Pengetahuan Tenaga Kesehatan Mengenai Mtbs Batuk Terhadap Penerapan Tata Laksana Batuk Menurut Mtbs Di Puskesmas Kota Samarinda Dan Puskesmas Kabupaten Kutai Kartanegara. http://libmed.ugm.ac.id/?pg=Collection&tab=kki
- [10] Putri, S. (2011). analisis faktor-faktor yang mempengaruhi komitmen petugas kesehatan dalam penerapan pedoman MTBS di Kabupaten Cilacap pada tahun 2010, 34.
- [11] Handayani, T. (2012). Fakultas kesehatan masyarakat peminatan bidan komunitas depok juni 2012.
- [12] Lange, S., Mwisongo, A., & Mæstad, O. (2014). Why don't clinicians adhere more consistently to guidelines for the Integrated Management of Childhood Illness (IMCI)? Social Science and Medicine, 104, 56–63. https://doi.org/10.1016/j.socscimed.2013.12.020
- [13] Adnan, D, S. (2014). Evaluasi Pelaksanaan Manajemen Terpadu Balita Sakit (mtbs) Pada Petugas Kesehatan Dalam Tatalaksana Pneumonia Pada Balita Di Kabupaten Aceh Besar diakses dari http://libmed.ugm.ac.id/?pg=Collection&tab=kki
- [14] Mayhew, M., Ickx, P., Newbrander, W., Stanekzai, H., & Alawi, S. A. (2015). Long and short Integrated Management of Childhood Illness (IMCI) training courses in Afghanistan: a cross-sectional cohort comparison of post-course knowledge and performance. International Journal of Health Policy and Management, 4(3), 143–152. https://doi.org/10.15171/ijhpm.2015.17
- [15] Al-Araimi, F., & Langrial, S. (2016). A Hypothetical Model to Predict Nursing Students' Perceptions of the Usefulness of Pre-Service Integrated Management of Childhood Illness Training. Sultan Qaboos University Medical Journal, 16(4), e469-474. https://doi.org/10.18295/squmj.2016.16.04.011
- [16] Vimala, Dewi. (2011). Evaluasi Manajemen Terpadu Balita Sakit (mtbs) pada Bayi BeratLahir Rendah (bblr) di Puskesmas Kabupaten Kuningan. Diakses dari http://libmed.ugm.ac.id/?pg=Collection&tab=kki
- [17] Nsabagasani, X., Ogwal-Okeng, J., Hansen, E. H., Mbonye, A., Muyinda, H., & Ssengooba, F. (2016). "Better medicines for children" within the Integrated Management of Childhood Illness framework: a qualitative inquiry in Uganda. Journal of Pharmaceutical Policy and Practice, 9, 22. https://doi.org/10.1186/s40545-016-0071-9
- [18] Husni, A, D. S., & Ansar, J. (2012). Gambaran Pelaksanaan Manajemen Terpadu Balita Sakit (Mtbs) Umur 2 Bulan- 5 Tahun Puskesmas Di Kota Makassar Tahun 2012 Description of Integrated Management of Childhood Illness (Imci) Child Aged 2 Months Up To 5 Years Implementation At Health Centres. Jurnal Kesehatan Masyarakat Indonesia, 2(1), 1–14.
- [19] WHO. (2005). HANDBOOK IMCI. https://doi.org/doi: 10.1093/heapol/czh001Adnan, D, S. (2014). Evaluasi Pelaksanaan Manajemen Terpadu Balita Sakit (mtbs) Pada Petugas Kesehatan Dalam Tatalaksana Pneumonia Pada Balita Di Kabupaten Aceh Besar diakses dari http://libmed.ugm.ac.id/?pg=Collection&tab=kki