Modern Practices and Educational Strategies in Indonesian Health Care and Nursing

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Introduction: Indonesia is widely recognized as a geographically complex nation which is comprised of an estimated 17,000 islands and with its 264 million inhabitants, it faces a unique combination of having to organize and deliver health care services to a diverse population who speak 724 languages or dialects.
Aim: The purpose of this critical reflective narrative is to expand on the challenging structure of healthcare in Indonesia and the corresponding environment for nursing. More specifically we elaborated on health care settings, delivery of care and nursing education in the midst of complex targeted healthcare reforms.
Methods: For this paper's needs a review and critical analysis was conducted by a systematic search in PubMed and Google Scholar, including papers from within the last two decades. Following critical taxonomy of the original output (i.e. 553 refs), a final 36 references were selected for inclusion.
Results and Discussion: Results have been organized under the broad categories of Health Care structure and delivery followed by Nursing Education and are further elaborated via critical narration under five detailed sub-categories, i.e. The health care system in Indonesia (Specialized health centers and hospitals), Community Nursing, School Nursing, Home Care Nurse, Nursing Education in Indonesia
Conclusions: Indonesia's wide geographical expanse of islands and population diversity makes health care delivery a complex task. Thus, the country should be praised for tackling these challenges and initiatives such as the creation of the PUSKESMAS network which increased geographic access and national healthcare coverage.

Keywords: Indonesia, Health Delivery, Home Care, Assess, Nursing, Education

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INTRODUCTION

Indonesia is widely recognized as a geographically complex nation which is comprised of an estimated 17,000 islands. With its 264 million inhabitants, it is currently the 4th most densely populated country in the world, facing the unique combination of having to organize and deliver health care services to a diverse population who speak 724 languages (and/or dialects) whilst residing across 900-1000 of their islands inhabited and 34 provinces that offer a range and mix of public and private healthcare providers (Badan Pusat Statistik, 2003) Indonesia's public healthcare system has been recently undergoing significant changes with its previously set target for universal coverage by 2024, not likely to be met due to slow progress. Yet, despite currently ranked 92nd by the World Health Organization, the country's healthcare infrastructure is gradually improving (Asante et al., 2023). Although there have been many obstacles along the way, Indonesia's healthcare system is soon to become one of the largest universal healthcare providers in the world.

Overall, public health facilities in Indonesia are widely considered as being modest as although major cities like Jakarta have very good public hospitals, rural clinics often offer very limited resources. Nevertheless, most public facilities are in need of added investment in updated equipment, laboratory services, and staffing levels. By contrast, private healthcare providers are more organized with up-to-date facilities with more staff compared to public centers. Moreover, waiting times are much shorter and there is a satisfactory range of specialists available (Suryanto et al., 2017).

Aim: The purpose of this critical reflective narrative is to expand on the challenging structure of healthcare in Indonesia and the corresponding environment for nursing. More specifically we elaborate on health care settings, delivery of care and nursing education in the midst of complex targeted healthcare reforms.

METHODS

For this paper's needs we conducted a review and critical analysis by a systematic search in PubMed and Google Scholar with the following key search terms: 'Indonesia' AND 'health delivery' OR 'home care' OR 'assess*' AND 'nursing' AND 'studies' OR 'education' AND 'school nurs*' OR 'community care'. The search was performed from May, 2023, to June, 2023, including papers from within the last two decades, as despite updated resources needed some historical references were also sought to identify the growth and

expansion of the healthcare system in Indonesia. Following critical taxonomy of the original output (i.e. 553 refs), a final 36 references were selected for inclusion.

RESULTS AND DISCUSSION

Results have been organized under the broad categories of Health Care structure and delivery followed by Nursing Education and will be presented via critical narration.

The health care system in Indonesia

Specialized health centers and hospitals: The health care system in Indonesia is managed by the Ministry of Health. Since 2014, the Indonesian government introduced the National Health Care Insurance (i.e. Jaminan Kesehatan Nasional), which is managed by the Social Security Administration Agency.

The system and corresponding law were initially based on the Constitution clause 40 in 2004 and subsequent President Decree 12 in 2013. Since then, the entire Indonesian population needs to register with the National Health Care Insurance. The benefit of registration includes promotion, prevention, treatment and rehabilitation aspects of care including appropriate medicine and other medical consumables based on diagnosis per se. There are two types of participation, one fully subsidized and one non-subsidized. Those who are primarily classified as fully subsidized are economically vulnerable citizens. Under this light, the government is obliged to fully cover for these participants (Paramita et al., 2018; Mulyanto et al., 2019).

However, the referral method within the healthcare system in Indonesia becomes increasingly important. In this context, patients need to start at the first level of health care which is called PUSKESMAS (Community Health Centers) or a family doctor. Alternatively, they can go to a general practitioner. Thus, if the condition cannot be sufficiently dealt with at the first level of service, the patient will be referred to a tertiary care facility. Yet, for emergency cases, the patients can go to any health care facility without prior referral (Brice et al., 2022).

Currently, the total number of PUSKESMAS in Indonesia is 9,825, with a ratio of 1.36 for each sub-district, all of which are overseen by the Ministry of Health. These are primarily responsible for providing healthcare at the sub-district level. There are two kinds of PUSKESMAS, those with beds and those without, but the differences add up to much more than accommodation availability as elaborated below.

- PUSKESMAS without beds: these operate as a daytime-only clinic. They have the capability to treat public outpatient concerns and implement different public health programs. Patients visit these for non- urgent,

prevention-focused care which includes antenatal appointments and family program services. These facilities are usually staffed by a general practitioner and a nurse. Yet, they are often stretched to the limit despite not being responsible for critical care. However, if a critically ill patient reaches a PUSKSESMA without beds, they will more likely be sent to a more appropriate facility immediately.

- PUSKESMAS with beds: these step- up facilities are usually located in rural areas, servicing as de facto 24-hour emergency centers. Yet, their ability to cope with emergencies has been criticized as being relatively limited. On a positive note, these PUSKSEMAS have been appraised for their provision of Basic Emergency Obstetric Care. Despite staffing not always being fully trained in this specific care, UNICEF-funded training is providing resources for specialized education, thus improving the situation all around (Limato et al., 2019).

While the total number of Public Hospitals in Indonesia reach 1,009 (27.85% government; 72.15% local government) still, they are out- numbered by Private Hospitals which equal to 1,767 based on data from Health Minister Republic of Indonesia in 2017. Hospitals in Indonesia are classified in 4 types, i.e. A, B, C and D. Total bed in hospital type A is 27,930, hospital type B is 94,107, type C is 130,367, type D 41,822, and unclassified hospitals hold 10,829 beds. The bed ratio for the total population in Indonesia is 1.2 per 1000 people (Werdhani, 2019; Efriandi, 2021).

Community Nursing

The career path of the community nurse in Indonesia consists of 5 levels with 4 components. The minimum education of community nurses is D3 or vocational nurse and the highest is a specialist level 2. Each career path is determined through a component of the period of employment based on previous education. All community nurses must take a special training and have competency certificates. Each level has a scope of work ranging from the Rukun Warga (RW), i.e. a group of families, (literally ‘a pillar of support for residents’) to the formation of more dense local communities through consultation in the framework of community service set by the village or villages. Along these lines, an RW is further divided into Rukun Tetangga (RT) literally ‘a pillar of neighbors’ yet another administrative sub-division of a village being the lowest administrative division of Indonesia (Sommers et al., 2018).

The organization of Primary Health Care for Nurses in Indonesia, called Ikatan Perawat Kesehatan Komunitas Indonesia (Indonesian Community Health Nurses Association) was established in 2008. Moreover, 19 out of 34 provinces in Indonesia already have administrators for the organization. The organization’s

vision statement is that community health nurses should play the main role to achieve a healthy society. Their mission per se is to improve the training of the community health nurses throughout Indonesia, strengthen their capabilities, facilitate their welfare and formalize the contribution of community health nursing clinical roles in health promotion for the Indonesian society. The purpose of community nursing in Indonesia includes four main prongs, i.e. health promotion, health protection, disease prevention and healing.

Health promotion is expected to be able to change, maintain and optimize healthy lifestyle routines of the community. Health protection aims to protect the public against mass or contagious illness. Prevention of disease focuses on specific groups at risk while healing is concerned with controlling disease and treating those who are sick by preventing further complications (Bait et al., 2019).

The 'clientele' of the community nurse includes vulnerable citizens, families, schools, community groups, special communities, high-risk groups (families or residents in slums, isolated areas, unreached areas, infants, toddlers and pregnant women) and poor and isolated communities. The role of community nurses is in line with government regulations stating that Public Health Centers are first-level health services in the community that prioritize preventive and promotive interventions to achieve the highest degree of public health in their working area.

Thus, for the past fifty years, Indonesia has committed to providing access to primary health care for its population via Public Health Centers, well known as PUSKESMAS (Community Health Centers) which can be found in each sub-district. In certain conditions the number of PUSKESMAS can be more than one in each sub-district (Hatt et al., 2015). Nurses collaborate with doctors, dentist, midwives, public health workers, environmental health workers, medical laboratory technology experts, nutritionists and pharmacists in carrying out their duties at the PUSKESMAS (Mahendradhata et al., 2017).

Thus, the PUSKESMAS was planned as a unit that provides curative and preventive services in an integrated, comprehensive, and easily accessible manner, within the sub-district work area or some sub-districts in municipalities or districts. As a front line of healthcare delivery, they are always expected to be effective strong and for this reason, a program was introduced for the continuous strengthening of PUSKESMAS. (WHO, 2017). Under this light, in order to meet health goals, the system of PUSKESMAS needs to be continually strengthened with better trained, motivated, competent, and responsive workforces that have the tools and resources to meet ever-growing health needs and geographical or overpopulation challenges in Indonesia (Sokang et al., 2019).

In developing countries such as Indonesia, community-based health facilities are suggested to be more effective with a marked healthcare outcome impact especially on isolated communities. Along these lines, the Ministry of

Health has made intensive efforts to build an extended network of PUSKESMAS in the master plan for the country's health service structure and delivery (Kurniati et al., 2015).

From 1969, the PUSKESMAS system has been divided in two main types, i.e. namely type A (managed by doctors) and type B (run by a paramedic). However, as the development of PUSKESMAS continued and their numbers expanded, health policy leaders decided that many of these facilities did not have to be led by a doctor, but could instead be led by a nurse with a Bachelor's in Public Health.

Furthermore, by seeking to improve geographic access across the country's islands, the network of care now extends to auxiliary PUSKESMAS, integrated health posts, mobile PUSKESMAS, village-level labor/delivery posts and village health posts. More specifically, the network of PUSKESMAS provides six key services, i.e.:

- Health promotion
- Communicable disease control
- Ambulatory care
- Maternal, child health and family planning
- Community nutrition
- Environmental health

Thus, the targeted additions to the healthcare service were in response to marked identified gaps in care delivery, e.g. mobile clinics, were established so that isolated populations that lacked access to formal health services were able to receive such services (Mboi, 2015).

Moreover, within the daily operation of PUSKESMAS, nurses collaborate with other health workers in implementing government programs called the Healthy Indonesia Program with a Family Approach.

Expected indicators of family achievement include 10 main sub-targets, namely: taking part in family planning programs, mothers giving birth in health facilities, babies receiving complete basic immunization, promotion of breast-feeding, child growth monitoring, close monitoring and treatment of patients with tuberculosis, patients with hypertension adhering to treatment and lifestyle regimes, patients with mental disorders getting appropriate treatment and care and not being stigmatized or neglected, smoking cessation, and access to clean water and sanitary toilet facilities for everyone (Setiawan et al., 2016; Satriani et al., 2022; Asri et al., 2022).

School Nursing

School Health Policy in Indonesia is regulated by the Health Minister and its corresponding standards (based on Law 39 in 2016) regulating guidelines for

implementing a Healthy Indonesia Program with a family approach (Sulistiowati et al., 2022). The main focus is to instigate health habits and lifestyle approaches early in life via maintaining a 'Healthy School Unit', strengthening the 'School Health Advisory Team', organizing the 'School Children Nutrition Program' and developing the implementing the use of health report cards (Hadi et al., 2022).

However, so far the number of school nurses in Indonesia needs to increase, especially in rural areas as in the vast majority of schools there is no school nurse and subsequently the teacher has also to play this role and deal with any health complication for his/her pupils.

However, in schools where there is a nurse employed, she/he is responsible for promoting good health and providing optimum health care services to all students. The school nurse also develops school health programs in cooperation with medical and administrative school personnel. Moreover, she/he evaluates students, performs medical examinations, reviews findings to determine the health status of individual pupils and progress of the program overall. Finally, she/he may also run classes in health related subjects, such as first aid, child care and home nursing by establishing nursing policies to meet emergencies.

Yet, the school nurse's office is not a primary care facility per se. Thus, the school nurse by law is not allowed to make a diagnosis, prescribe treatment, or administer medication without a Doctor's order. First aid and medical care provided by the school nurse are primarily for illnesses or injuries that occur during the school day routine. So, usually school nurses will be working with a doctor in carrying out their routine duties. Yet, despite treating the health problems of the students they are also expected to make a referral for cases that need further investigation or treatment (Betriana et al., 2021).

Overall, the current responsibilities of a school nurse are as follows:

- Provide immediate medical attention and care to students and staff during school hours.
- Conduct health assessments and screenings to monitor student's well-being.
- Administer prescribed medications and maintain accurate health records for students.
- Respond effectively to medical emergencies and collaborate with local healthcare providers as needed.
- Educate students, parents, and staff on health-related topics and promote a healthy school environment.
- Collaborate with school counselors and educators to support students with health-related needs.
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In the future, the duties of school nurses are expected to include more sophisticated preventive measures, educating the school staff, treating and preventing communicable diseases and conducting follow-ups or home visits (Widyasari et al., 2020).

From a parents' perspective, special health concerns should be conveyed to the school nurse for continuation of care. Therefore, the parents' responsibilities are as follows:

- To schedule medications and/or medical treatments during non-school hours.
- To bring all medications into the school.
- To secure a completed Medication Permission Form for all prescription and non prescription medications.
- To make sure that all medications are presented properly bottled and labeled by a pharmacist or, for over the counter medication, in an unopened sealed container with the child's name clearly written on it.

Home Care Nurse

The Indonesian Nursing Act No. 38 Article 19 of 2014, described the nurse's clinical scope of practice of carrying out the nursing profession (Wardani & Ryan, 2019). Thus, nursing practice can be executed in the form of organized clinics or treatments at home (home care). Home care is a sustainable health service and comprehensive cares offered to individuals and families in their residence with the core aim to improve, maintain or restore health or maximize the level of independence and minimize the consequences of disease (Eng et al., 2023).

Health services at home or home care nursing services includes patient care post-stroke, post-operative patients, diabetes complications, trauma or rehabilitation care. Yet, the family perception of diabetic wounds is often based on wound conditions per se without the wider clinical manifestations of the condition and potential route to recovery (Sari et al., 2020). In addition, the patient's family and caregivers are often lacking in knowledge and are unable to

provide sufficient care of patients at home, without the support of home care services' and their monitoring of delivery and additional expected home care input (Kusyati & Putri, 2016).

Home care is an act of extending hospital treatment to fulfill the patients' rights to healthcare delivery after discharge. Therefore, a concise hospital discharge policy that includes a comprehensive home care service delivery is essential (Negarandeh et al., 2021).

Yet, Paryono et al., (2022) showed that although home care personnel agreed that home care services is an essential for continuation of care, resources for such a target are limited and somewhat overambitious.

Nursing Education in Indonesia

In general, Nursing Education in Indonesia is based on Law 20 of 2003 concerning the National Education System which includes a 3.5-year bachelor degree and a 1 year specialization programme which are required to become a Professional Nurse and a 3-year diploma in becoming a Vocational Nurses. In more detail, these three tier educational stages include (Gede et a., 2021):

1. Vocational Education, namely Diploma Three Education (D3) in Nursing as organized by nursing higher education institutes in order to produce graduates who have competence as executors of basic and supportive nursing care.
2. Academic Education, i.e. higher education undergraduate and postgraduate programs directed primarily at mastering certain nursing scientific sub-disciplines.
3. Specialized Education, namely higher education after an undergraduate program that prepares students to have jobs with special skills requirements (specialist programs and doctoral nursing).

In this context, nursing education is organized based on the need for nursing services, as stated in Law 36 of 2009, which states that health workers are persons devoted to the healthcare sector and possess knowledge and skills through education within the health sector requiring certain types of authority to carry out specific healthcare tasks (Sommers et al., 2022).

Thus, according to the taxonomy above, the corresponding title of the degree for nursing education is (Casman et al., 2020):

1. Education level D3 nursing graduates get the title AMD.
2. Education level Ners i.e. Bachelor level Nurse
3. Master’s graduates who get a M.Kep degree
4. Specialist nursing, consisting of:

a. Medical Surgical Nursing Specialist, graduate (Sp. KMB);

b. Maternity Nursing Specialist, graduate (Sp.Kep.Mat);
c. Community Nursing Specialist, graduate (Sp.Kep.Kom);
d. Child Nursing Specialist, graduate (Sp.Kep.Anak);
e. Mental Nursing Specialist, graduate (Sp. Kep. Jiwa);
5. Doctor of Nursing, graduate (Dr. Kep)

Professional nursing education has to go through at least two stages, i.e.: the stage of academic education where graduates receive a Bachelor's degree in Nursing (S.Kep.) and continue with the stage of professional education where graduates get the title Ners (Ns). Both of these stages must be followed through, as they constitute integrated stages of education, so they cannot be separated from one another. Finally, the Ners Education Program is a professional academic education program that aims to produce qualified nurses with full professional degrees (Hidayat & Uliyah, 2019).

The nursing master program is a postgraduate academic education program that aims to produce master graduates who acquire the following capabilities:

1) Develop and update on science and technology by mastering and understanding, approaches, methods, scientific rules and their application skills.
2) Solve problems in the field of nursing through research and development activities based on scientific rules.
3) Develop professional performance as indicated by their ability in problem analysis, coverage of reviews and coherence of problem solving or similar endeavors.

The doctoral program in Nursing is directed towards graduates who have demonstrated the following abilities:

1) Develop new concepts of science, technology or art in their fields of expertise through research.
2) Manage, lead and develop solid research programs.
3) Facilitate an interdisciplinary approach to working in the field of nursing (Theofanidis, 2021;McKenna et al., 2023).

Conclusions: Indonesia's innovative approach to optimize healthcare delivery and access to health services through universal health coverage reforms also included improving health equity. Yet, despite the country having made substantial progress in expanding health-care coverage across its challenging geography, much remains to be done to improve more equity and access.

However, Indonesia’s wide geographical expanse of islands and population diversity makes health care delivery a complex task. Thus, the country should be praised for tackling these challenges and initiatives such as the creation of the

PUSKESMAS network which increased geographic access and national healthcare coverage. Overall, Indonesia's unique PUSKESMAS health care delivery sub-system has helped to build the foundations of a wider-reaching primary care delivery system, thus serving a widely dispersed population with quality services which focus on continuity of care, community empowerment, integrated healthcare facilities and increased equity in health services.

Looking ahead, Indonesia hopes to address persistent disparities in access and quality by bridging gaps in care coverage through expansion and further upgrading of the PUSKESMAS network, a scheme that has proven to help build the foundations of a wider-reaching primary care delivery system.

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