Kearifan Kesehatan Lokal: indigenous medical knowledge and practice for integrated nursing of the elderly with cardiovascular disease in Sumedang, West Java: towards transcultural nursing in Indonesia

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CHAPTER I INTRODUCTION

1.1 The Development of Community Nursing in Indonesia

1.1.1 The Development from Public Health to Community Health

The early introduction of the Western medical system into Indonesia through the training of health personnel goes back to the establishment in 1853 in Batavia (today Jakarta) of the *School ter Opleiding van Inlandsche Geneeskundigen* (STOVIA) ('School for the Education of Native Doctors'), from where trained local medical doctors and nurses spread the knowledge and practice of public health gradually among the population. At that time, public health practice largely aimed at preventing smallpox and cholera by training *mantri* ('health workers') to administer vaccination programmes to the local population, which largely depended on their *kearifan kesehatan lokal* ('indigenous medical knowledge') and *jamu* ('traditional herbal medicine') for maintaining their health and well-being.

In 1875, as Hesselink (2011) documents, the doctor training programme was reformed, having consequences for the position of the graduates on the medical market. In 1902 further revisions were introduced to train local medical doctors – *dokter djawa* – leading to a change in the name of the school into *School tot Opleiding van Inlandsche Artsen'* (STOVIA) ('School for the Education of Native Doctors'). In the following years, in order to give students more practice, several outpatient clinics were opened for surgery, eye diseases and internal diseases, which, in turn, disseminated the Western health services to the general public. Soon, similar medical training schools were established elsewhere in Indonesia, such as in Surabaya and Nias.

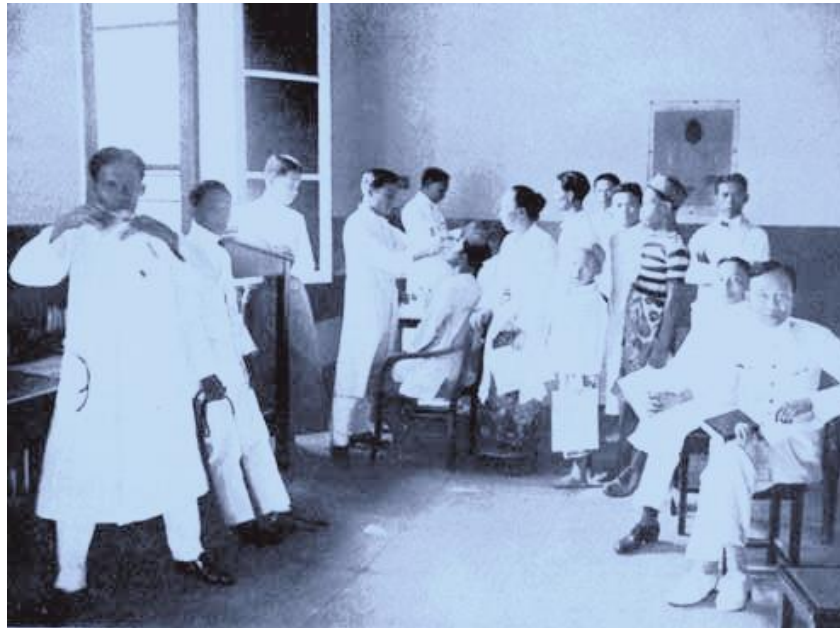

Illustration 1.1 Outpatient eye clinic in Weltevreden around 1920
Source: De Waart 1926b: 365 in Hesselink 2011.

Later on, the newly-trained *dokter djawa* (medics) played a significant role in bringing the people in closer contact with Dutch, *i.e.* Western forms of public health. As Engelenberg (1926:274) notes*: 'To conduct prudent propaganda to encourage the people's trust in Western medicine, surgery and obstetrics, the native doctors along with good nurses and orderlies are the appropriate agents' (cf.* Hesselink 2011).

Figure 1.1 shows the growing number of patients in the outpatient clinics between 1890-1920, who received the early public health services by the locally-trained medical doctors, expanding their mission to achieve an equitable distribution of health for the total population.

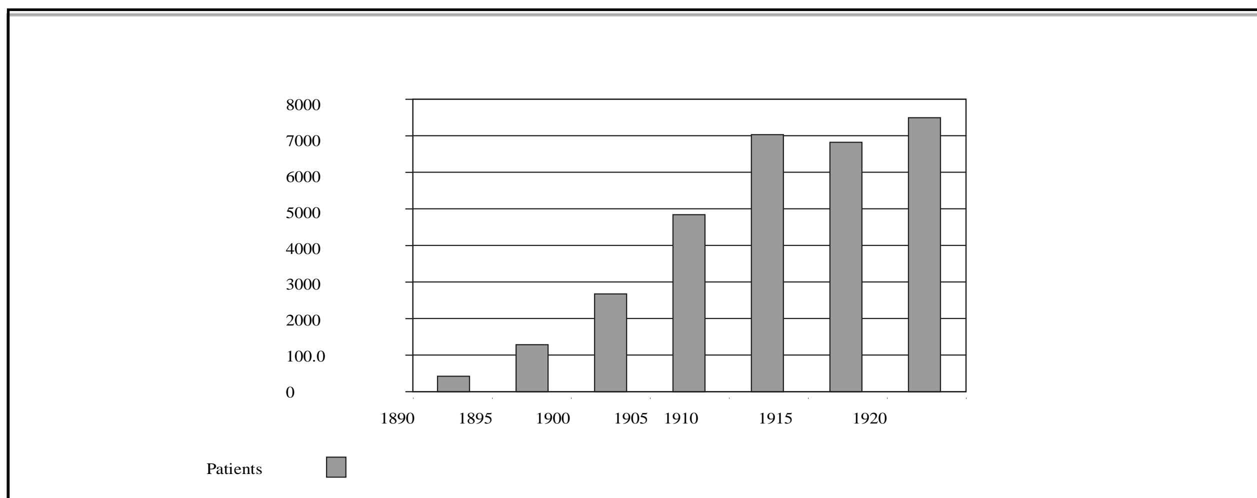

Figure 1.1 Number of Patients in the Outpatient Clinics of STOVIA, 1890-1920
Source: De Waart 1926b:365 in Hesselink 2011.

Meanwhile, the strategy of public health developed into a special field in Western medicine, defined by Wislow (1920:12) as: '*the science and art of preventing disease, prolonging life and promoting health through the organised efforts and informed choices of society, organizations, public and private, communities and individuals'*. Later on, with the shift of the provision of public health for the entire population to focus on the general situation of health and disease in the communities, a new strategy of 'community health' emerged. In 1936, Hydrick established the *Sekolah Mantri Hygiene* ('School of Hygiene Community Practitioners') which served as community health educators in the villages by teaching the community about health matters and healthy lifestyles for many years, until Indonesia gained Independence in 1945 (*cf.* Riyadi 1981).

Thereafter, the *Bandung Health Programme* started to introduce the integrated preventive and curative principles in medical services. In 1952, several years after Independence, Indonesia became one of the first developing countries which integrated the *dukun bayi* ('traditional birth attendant' - TBA) into the modern nursing system and trained these TBAs to become the supporters of *Keluarga Berencana dan Programme Kesejahteraan Keluarga* (PKK) ('Family Planning and Welfare Education Programme') (*cf.* Riyadi 1981; Ambaretnani 2012). This concept of PKK was later changed into ten sub-programmes, and the *Puskesmas* ('Community Health Center') became in 1968 the service unit to deliver integrated preventive and curative services to all clients and patients at the village and district levels. The *Puskemas* have at least 13 programmes, such as medical treatment, Maternal and Child Health (MCH), eradication of contagious diseases, community health and sanitation, health education, dental care, school health programme, laboratory services, mental health, and health communication with local communities. It is needless to underscore that the role of the *Puskemas* has been crucial to community health care development, in addition to its position as the center for medical treatment at the community level.

The *puskesmas* has always been cooperating with the local government in order to ensure affordable nursing, medical treatment, and health education for the community members, irrespective of their income and social status. The development from 'public health' to 'community health' has become part of the national development process with the aim to maintain a healthy and productive environment for the population through preventive and promotive health action at the community level. One of the main supporting strategies is community empowerment, which seeks to encourage the community members to maintain their health and provide minor treatment of illness.

According to the legislation from the Indonesian Ministry of Health No. 8/2019, community empowerment in the health sector is a process to increase knowledge and individual/communal awareness, as well as the capacity to actively participate in the efforts to elevate the healthy lifestyle through education and participation, based on the local needs. Thus, the community has to be actively involved in the provision of nursing, planning, organising, and providing nursing services, as well as self-administered nursing. Community empowerment will also serve as the foundation for community independence as specified in the definition of *Health for All* by WHO – SEARO (2009) as actively trying to attain good health or to pay attention to self-care. Community health care development seeks to maximise the local resources in order to mobilise its potential. The strategy by WHO (2009) indicates that the national nursing system has to provide access for all community members individually, providing health resources as basic human needs.

In this way, the practice of nursing, as part of the recent community health strategy, has to be sustainable. Every individual has the right to have access to quality nursing services and to administer self-nursing at a minimum cost to avoid excessive nursing expenses, which may lead to financial constraints (*cf.*Yusuf *et.al* 2018). Moreover, there is much local knowledge available in the communities which can be utilised to implement an improved nursing programme. The community needs to work in partnership with the government, where both work hand in hand as equal partners through the *Pemberdayaan Kesehatan Masyarakat Desa* (PKMD) ('Village Community Health Care Development' – PKMD). The PKMD programme is an operational form of public health in the villages, which has been implemented since the establishment of the New Order in 1965, and has become an integral part of the national community development programme (*cf*. Logo 1980).

Despite such a long history of community health programmes, efforts to define the meaning and scope of 'community health' have remained rather limited. Embarking on the general characterisation of a 'community' as a group of inhabitants living in a localised area under the same general regulations and sharing common knowledge, norms, values, institutions and organisations, McKenzie (2005: 12) introduces his definition: '*Community Health refers to the health status of a defined group of people and the actions and conditions, both private and public (governmental), to promote, protect, and preserve their health*'. Although this definition certainly provides a useful conceptualisation, the approach may be useful in constructing a study design and a programme implementation, but it does not reflect, as Goodman, Bunnell & Posner (2014) argue, the reality of the situation. According to these scientists, the greatest challenge for the field of 'community health' is to develop innovative methods, which take into account the complexity of communities, the variability of how health in communities is defined, and how evidence can be generated which reflects the reality of the communities in which people live, work, and play. They make a plea for a better integration of 'practice-based' evidence in order to enable community health scientists to better understand the community and generate evidence which will be relevant to the practice. Their call for such an integration of 'practice-based' evidence is providing a crucial direction to this study in Sumedang, West-Java, Indonesia (cf. Goodman, Bunnell & Posner 2014).

However, for the assessment of the interaction between a particular configuration of health and disease, and the provision of special medical services at the community level, an appropriate definition of 'community health' is provided by Sofoluwe (1985: 3): *'Community health is that branch of health service which aims at achieving the highest level of physical, mental, social, moral and spiritual health for all citizens on a community basis'.* According to Sofoluwe (1985: 3) such an aim is then realised by: *'identifying the prevalent diseases and by dealing with a judicious utilization of governmental, private, and especially community resources';* the pluralistic orientation of his definition towards different community nursing resources provides the dynamic context of this study in Sumedang.

As in many developing countries, after more than half of a century, Indonesia is also becoming aware of the fact that the relations between the providers and the receivers of modern medical services have not been able to meet the basic medical needs of all citizens. By consequence, the Government of Indonesia has recently encouraged community participation in programmes in order to improve community health.

The *Depkes Republik Indonesia* ('Indonesian Ministry of Health') (1990) introduced the development of 'community health' as: *'a distinctive feature of community members' involvement and engagement in the health care development programme'*.

1.1.2 The Epidemiological Transition and Primary Health Care

The recent trends in the development of 'community health' in Indonesia are dominated by two factors: the 'epidemiological transition' among the population, and the continued inability of the modern medical system to provide appropriate nursing for all communty members of the many ethno-cultural groups throughout the country, particularly special groups in need of basic health services such as the elderly. It was Maurice King (1966) who in his classical study on *Medical Care in Developing Countries* pointed out the consequences of the sharp difference in disease patterns between the developing and developed nations for medical care; Omran (1971: 2) later on introduced his model of the 'epidemiological transition' as: *'the change in disease patterns and causes of death within a population because of various demographic, economic, industrial, and sociological factors'*. The transition is directly related to global trends such as population growth, climate change, change in lifestyle and the advance of non-sustainable environmental innovations and technologies, and is not limited to Indonesia, but has been experienced in many other developing countries.

In addition, Indonesia has also been facing hazardous health conditions with the emergence of not only new strains of infectious diseases, but also with the emergence of 'cultural diseases' such as CVD (Cardiovascular Disease), obesity, diabetes, traffic accidents and mental disorders on a massive scale. The country's changing epidemiological profile, related to socio-cultural and environmental changes, calls for immediate action on a national level, especially in terms of the development of an effective public health programme. As regards the process of globalisation, however, there exists an ambiguity in the implementation and effect of public health services, particularly as to how these are designed to reach out to all population groups at different levels. Waters (2006) argues that globalisation will hardly reach the local commmuities as a whole, as it depends on the balance of the risks and benefits of the local resources. Although the recent global movement has shown to develop in the same direction, diversity in the design and implementation of appropriate community health programmes would enable the realisation of improved and sustainable health for all citizens. Since 'community health' and 'nursing' are both implementing closely-related health services, where 'community nursing' in particular is providing health services directly to clients and patients, their programmes have to be adjusted to the interplay between the local and global processes of development and change. Effendy (1995) argues that changes and trends in the community with regard to nursing can best be analysed through the study of processes involving several categories of factors, which are furher elaborated in the following Chapter II.

While in Indonesia, the problems of the 'epidemiological transition' among the population can largely be monitored at the national level through special attention to the global-local interaction in public education, advanced health personnel training, policies, programmes, and adaptations in the health care delivery system, the continued inability of the medical system to provide appropriate nursing services to the communities needs special attention. Nursing in particularly which is attuned to all communty members of the different ethno-cultural groups seems more complicated, where so far, a 'top-down' approach has been implemented. A programme to increase the level and sustainability of the quality of community health care development requires an understanding of the local dynamics in order to use the local resources wisely (*cf.* Quah & Slikkerveer 2003). However, health care development which is based on the local communities' needs requires a rather holistic and comprehensive approach, which also includes scientific research and monitoring to ensure its sustainability (*cf.* Sudrajat & Purwasasmita 2004). Moreover, the central policies regarding the providers of community nursing are in need of a 'bottom-up' approach, where local peoples' knowledge, beliefs, practices and institutions in the field of health and healing are seriously taken into account. As Slikkerveer (1990; 2017) underscores, more attention should be paid to the cultural dimension of development, specifically in health care development where local peoples' views and

experiences are to be integrated into national development projects and programmes in order to extend the health care coverage of services. One of the important demographic issues in Indonesia, as in any developing country, is aging. The population of the elderly in Indonesia has reached above 7%, wherein in 2012 it reached 7.56%. It is estimated that in 2050, the elderly population in Indonesia will reach 28.68% (*cf.* Pusdatin 2013). According to Adioetomo & Mujahid (2014), the population of Indonesia can be regarded as 'old population' if the proportion of the elderly population (age 60+ years) has reached 10% or more. Indonesia is one of the countries which will soon enter the category of 'old population', because the percentage of elderly people has already reached 7.6% of the total population (Population Census BPS 2010). According to Bappenas, BPS, and UNFPA (2013) the projections will continue to increase in 2020-2035 in conjunction with Indonesia's Life Expectancy (UHH), which will continue to increase from 69.8 in 2010 to 72.4 in 2035. This process results in the demographic and epidemiological transition in Indonesia.

Epidemiological transitions are complex changes in patterns of health and disease-causing death. This happens along with changing lifestyles, socio-economics and increasing life expectancy, which means a higher incidence of degenerative diseases, such as heart disease, diabetes mellitus, hypertension, etc. Such transition means that there are changes in diseases causing death, for example from infectious diseases to Non-Communicable Diseases (NCD) [1]. In reality, Indonesia faces a triple burden, namely: infectious diseases, non-communicable and emerging diseases [2]. Data from 1995 to 2007 show that in Indonesia the proportion of infectious diseases had declined by a third from 44.2% to 28.1%, but the proportion of non-communicable diseases had increased significantly from 41.7% to 59.5% (*cf.* Pusdatin 2012). The data of the National Economic Survey (Susenas) of 2012 show that more than half of the elderly (52.1%) experienced health complaints in the preceding month. The most common health complaints experienced by the elderly are Hypertension, Rheumatism, Hypotension, and Diabetes Mellitus (32.99%) (*cf.* Guessous *et al.* 2012). The Indonesian Hospital Association (2009) mentions that about 74% of the elderly in Indonesia suffer from chronic diseases, so they have to consume medicines during their lifetime. Reports from hospitals in Indonesia through the Hospital Information System (SIRS) in 2010 showed that the ten ranks for outpatient diseases in the 45-64 year-old and 65+ year-old age groups essentially had to do with hypertension (*cf.* Pusdatin 2013).

The results of the study indicate that the problem associated with the high prevalence of chronic diseases among the elderly is the increasing uncontrolled condition of chronic elderly diseases, in line with the results of the Guessous *et al.* (2012) which show that around 50% of hypertensive patients do not take action and are not controlled.

Likewise, the results of *Riskesdas* (2013) ('Basic Health Research') show that most (63.2%) cases of hypertension in the community remained undiagnosed, while 42.1% of stroke cases in the community were undiagnosed, and even 88.1% of cases of rheumatism in the community are not diagnosed (*cf.* Ministry of Health RI 2013). In addition, data from the Ministry of Health (2013) show that in Indonesia the prevalence of smoking in elderly people aged 55 years and over is quite high, above 30%, with the highest in the 55-64 year-old age group, which is 37.5%. Although there is a change in the prevalence of the population with high blood pressure nationally by 30.9%, the prevalence of high blood pressure in women (32.9%) is higher than that of men (28.7%). The prevalence in urban areas is slightly higher (31.7%) compared to rural areas (30.2%). Prevalence increases with age (*cf.* Ministry of Health 2018). Following the consequences of the 'epidemiological transition' of the 1970s for the changing heath and disease profiles of many countries around the world, new initiatives were taken worldwide to develop adequate responses on several levels. Thus, the international World Health Organisation (1978) introduced the timely concept of 'Primary Heath Care' to improve the health and well-being of all people around the globe. At the Conference of Alma Ata, WHO (1978: 5), 'primary health care' was defined as: *'essential health made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford.'* The concept of 'primary health care' soon became a leading approach to introduce new forms of health care services to all

citizens by health manpower, ranging from medical assitants, birth attendants, nurses, medical doctors and specialists.

1.1.3 The Impact of Increasing Cardiovascular Disease on the Elderly

In Indonesia, the impact of the epidemiological transition became particularly manifest in the above-mentioned changing disease patterns among the elderly, who became specifically vulnerable to the increase of non-communicable diseases, from 41.7% to 59.5% (*cf.* Pusdatin 2012). Similarly, data from the National Economic Survey (Susenas) of 2012 document that more than half of the elderly (52.1%) experienced health complaints in the preceding month, in particular Hypertension, Rheumatism, Hypotension, and Diabetes Mellitus (32.99%) (*cf.* Guessous et al. 2012).

Among the elderly, hypertension as an important factor leading to CVD is known as the 'silent killer', being one of the major causes of death. CVD refers to cardiovascular disease and is contributing to around 17,3 million annually death worldwide. In developing countries, from 1990-2020, the number of deaths caused by coronary heart disease is expected to increase by 13.7% in men and 12% in women. Based on the results of the 2013 Basic Health Research by the Ministry of Health, the prevalence of CVD is shown to increase according to age. The highest prevalence was found in the ages between 65-74 years (0.5%) and ≥75 years (1.1%). The prevalence is higher in women (0.2%) than in men (0.1%). Similarly, the results of the Basic Health Research (*Riskesdas* 2018) indicate that the prevalence of hypertension based on the doctors' diagnoses increases with age, where the percentage for women is higher than for men, while cases of hypertension in urban areas were more than in rural areas.

Likewise, with the prevalence of CVD increasing with age, the prevalence of CVD is increasing in general as well. In the 55-64 year-old age group, it is 3.9%, in the 65-74 year-old age group 4.6% and in the 75+ year-old age group, it is 4.7%, with a greater percentage of women (1.6%) than men (3%), and 1.6% in urban areas and 1.3% in rural areas. Furthermore, Menz & Langlois (2013) report that the increase in the incidence of CVD among the elderly in a South Australian Region was related to age. It is evident that the elderly change in the structure and function of their body system, including their cardiovascular system. The change varies among the elderly, but that does not mean that it refers to a disease. However, it is rather difficult to assess changes which occur among the elderly, especially in the cardiovascular system, whether as an effect of the aging process or as a consequence of CVD (*cf.* Halter *et al*. 2009).

Data from the Health Research and Development Agency (Balitbangkes) (2011) show that in 15 districts/cities, the proportion of elderly deaths from non-communicable chronic diseases was 58.8% between 55-64 years, and 55.5% at the age of 65 and above. Meanwhile, the highest proportion of causes of death among the elderly group is stroke and ischaemic heart disease, as a result of uncontrolled hypertension (*cf.* Pusdatin 2013; Riskesdas 2013, 2018). Ample studies show that there are six categories of chronic diseases which are closely related to the aging process, namely: CVD (heart, hypertension, and vascular disorders), endocrine and metabolic diseases (diabetes mellitus and thyroid imbalance), bone and joint disease (rheumatoid arthritis, gout arthritis, and osteoporosis), Chronic Obstructive Pulmonary Disease (COPD), and cancer (*cf.* Barondess 2008; Barondess *et al* 2013; Chouinard *et al* 2013; Gonzalez & Norris 2013; Mafuya 2013). In addition to these factors in the aging process, other risk factors result in a similarly high prevalence of various chronic diseases, being the result of unhealthy lifestyles, such as smoking, excessive alcohol consumption, unhealthy eating patterns, and lack of exercise (*cf.* Vathesatogkit 2012; Hunter & Reddy 2013; Elwood *et.al* 2013). These studies show that if there is no appropriate management provided for the epidemiological transition process, it will have a serious impact on reducing the quality of life of the elderly, even increasing their mortality rates in Indonesia.

The World Health Organisation (WHO) argues that deaths from chronic non-communicable diseases are expected to continue to increase throughout the world, including Indonesia (*cf.* Pusdatin 2013). Fortin *et al.* (2013) explain that as much as 59% of deaths are caused by chronic diseases, while Hunter & Reddy (2013) underscore that more than two thirds (about 80%) of the global

population will die from chronic non-communicable diseases. Since the same conditions also occur in Indonesia, the care of chronic disease among the elderly group has to consider a wider set of aspects, including self-efficacy, empowerment, comorbidity, health behaviour, functional health status, quality of life for the elderly, psychosocial and spiritual welfare, characteristics of the elderly and their families, and appropriate types of intervention and management strategies. In particular, it has to be provided in a comprehensive way by designing policies which pay attention to the socio-cultural medical context of the elderly at the community level, close to their homes.

In cases of serious diseases such as CVD among the elderly, the relationship with aspects of the local culture is very strong and becomes manifest in the provision of nursing practice, which aims to provide optimal care to help patients dealing with the disease.

In general, however, the current nursing practice as part of the national 'primary nursing approach' in Indonesia has not given sufficient attention to the important role that these culturally sensitive nursing practices are playing in the provision of overall nursing in Indonesia, causing difficulties in achieving patient satisfaction with their services (*cf*. Hariyati & Sahar 2012). While nursing practices for the elderly with CVD in Indonesia mostly remain largely focused on the modern medical system, the cultural aspects of patients are hardly taken into consideration. By consequence, the cultural gap between providers and users of nursing, and in particular nursing of the elderly, is missing in the planning of comprehensive nursing of the elderly at the community level. It is evident that a research-based approach on integrated nursing practices is needed in order to reduce these limitations and lead to successful nursing efforts to promote health, treating disease and improving welfare among these target groups in the community. So far, however, the political approaches in health care delivery which have been widely used in Indonesia are posing particular problems to the povision of basic health care for all citizens, when such policies are not only missing their basis of accepted scientific principles, but also ignoring the soio-cultural context in terms of indigenous knowledge, beliefs, practices and institutions. Similarly, indigenous medical knowedge and pratices, including the widespread use of *jamu* have to be regarded as a significant complemenatry way to solve local health problems in the community (*cf*. Slikkerveer & Slikkerveer 1995). Indeed, as is amply shown by a growing number of evidence-based studies, the integration between global and local knowledge systems in many sectors of the community, incuding health, will not only lead to increased utilisation of such integrated systems, but will also encourage an increase in the utilisation of nursing by specific target groups in the community, particularly the elderly, and as such improve the overall health of the population.

By consequence, the research on traditional nursing institutions at the community level – so far grossly neglected – needs to be further extended in order to prepare, document, analyse and promote their integration into an integrated nursing system, also kown as the approach of transcultural nursing. Indeed, every ethno-cultural group in Indonesia has developed up until today its alterntive approaches to health and healing over many generations, going back to the times before the introduction of Western medicine during the Dutch colonial administration. The study, analysis and re-vitalisation of these systems for the development of a comprehensive nursing system has to have priority in sustainable policy planning and implementation of integrated nursing for the benefit of health for all.

The present research specifically aims at studying the various forms of nursing knowledge and practices for the elderly with CVD, with special attention to the role of the traditional nursing institutions of the elderly with CVD in the plural nursing system in Sumedang, West-Java. Thus, it is particularly important to document and study how the local communities are dealing with the changes among the elderly with CVD by the utilisation of traditional, pharmaceutical and/or modern medical systems. Such applied-oriented research for future policy planning should focus on the study of the overall interaction and the relationship between the relevant background factors of the patients and their utilisation behaviour of the available medical resources for the treatment of the elderly with CVD at the community level.

1.1.4 From Community Nursing to Nursing of the Elderly

Parallel to the development of public health towards the strategy of 'community health', a similar process emerged in the related field of nursing. In the course of the 1990s, the concept of 'public health nursing' was introduced within the framework of public health, encompassing a combination of the practices of nursing and public health, with a focus on issues of equal access to medical services, social justice and health policy planning and implementation for all citizens. These services are largely implemented through the general application of theory, evidence, and a general commitment to equity in health.

Nursing, in its historical context, can be traced back to the 5th century BC where, for example, the Hippocratic Collection describes skilled care and observation of patients by traditional male 'attendants', who may be called early nurses. It was Florence Nightingale who in the 19th century laid the foundations of professional nursing after the Crimean War. In her famous publication *Notes on Nursing,* Nightingale (1859) argued that nursing was both a social freedom and a mission for women, and that educated women can help to improve the care of patients. More recently, 'nursing' is well-conceptualised in the definition of the International Council of Nurses (2002:1) as follows: *'autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people, and includes different traditional, transitional and modern systems*'.

In contrast, however, 'nursing care', is defined only within the context of the modern medical system by the International Council of Nurses (2002:1) *'nursing care' means the practice of nursing by a licensed nurse, including tasks and functions relating to the provision of "nursing care" that are taught or delegated under specified conditions by a registered nurse to a person other than licensed nursing personnel, as governed by the state*'.

The definition of the above-mentioned strategy of 'public health nursing' is provided by the American Public Health Association, Public Health Nursing Section (1996: 3): '*the practice of promoting and protecting the health of populations using knowledge from nursing, social, and public health sciences'.* Today, this definition, albeit up-graded, is still the guiding principle for the strategy of 'public health nursing' around the globe.

Meanwhile, since the community members showed a preference and need for the delivery of nursing outside acute hospitals within the community, for example in their home, or within general practice facilities, in community centers, at schools or in a care home, the strategy of 'community nursing' was developed to improve the delivery of health services in the community. Based on a combination of primary health care and nursing in the community, 'community nursing', also known as 'community health nursing', became an important task of nurses who started to provide health services, preventive care, intervention and health education to the community.

The World Health Organisation Expert Committee of Nursing (WHO 1995: 3) defines 'community nursing' in a broader sense as: *'a field of nursing that combines the skills of nursing, public health and some phases of social assistance and functions as part of the total public health programme for the promotion of health, the improvement of the conditions in the social and physical environment, rehabilitation of illness and disability'.*

As a special field, 'community nursing' is provided to the community within the general framework of 'primary health care' as the key to achieving the goal of *'Health For All*', particularly in developing countries.

As Clark (2014) indicates, the strategy of 'community nursing' was further elaborated by the American Nurses Association (ANA) as a general term for all nurses who work for a facility, but practice only in the community itself outside of institutional settings. In this context, ANA (2000:5) underscores that: *'Community nurses often use health indicators, such as mortality rates, disease prevalence, levels of physical activity, obesity, etc. to describe the health status of a community and serve as targets for the improvement of a community's health'* (*cf.* Clark 2014).

In Indonesia, as a result of the recent epidemiological transition which – as in many other developing countries – has recently taken place in the country, where in particular CVD among the older population has increased dramatically, the role of 'community nursing' with a focus on the gerontological population is very important and needs readily available nursing for the older clients in the community, specifically for blood pressure and glucose monitoring facilities for the elderly.

Such a strategy of 'nursing for the elderly' has the challenging task of caring for the older population—a population with its own set of complex needs which require well-trained nurses to properly address the needs of the elderly in the community. As Mayhew (2000: 3) notes: *'elderly care services are defined to include personal and social services such as social care in the home or in an institution such as a nursing or residential home. These services may include help with daily living, advice on financial affairs, companionship, and so forth'*. It includes home care, assisted living, day care, long-term care, nursing homes, and hospice care.

Similarly, there exists a wide variety of needs of care for the elderly, based on the cultural background of the elderly, for which a broad range of practices and institutions have been developed. Interestingly, the government organisations for elderly care are seldom used, where the younger generations provide the nursing for their older family members. An important aspect of the care of the elderly in Indonesia is adherence to their specific socio-cultural needs as they receive nursing care with dignity in daily activities as well as in health care. Such traditional forms of nursing care are mainly unpaid. Kennedy & Ramukumba (2020) underscore that the nurse has to be educated in community issues in order to deliver care and meet the patient's needs. Nurses working at these facilities which focus on the needs of the elderly have to be educated in common issues of the elderly.

One of the largest international websites on nursing, *Nurseslabs*, has developed an advanced nursing care plan for nursing of the elderly (older adults) or 'geriatric nursing' for modern Western health care delivery systems. Nurseslabs (2022:1) conceptualises 'nursing of the elderly' as: *'a specialism in the care of older or elderly adults, where nursing addresses the physiological, developmental, psychological, socio-economic, cultural and spiritual needs of aging individuals in a community.'* Since aging is a normal part of human life, nursing for elderly clients should not only be isolated to one field, but is best given through a collaborative effort which includes their family, community, and other members of a health team.

In Indonesia, the use of the term 'nursing care' is also only reserved for the licenced practice of nursing in the modern medical system, regulated by the state. For the study in Sumedang, where various forms of nursing sub-systems are provided, it means that 'nursing' has to be conceptualised in the broader sense of 'nursing' as defined above. In the research, special focus will be placed on nursing of the elderly with CVD, and as such operationalised in the broader conceptualisation of 'nursing' at the community level, also encompassing indigenous knowledge, beliefs, practices and institutions of nursing provided to the elderly, known as the 'indigenous nursing institutions', which is an important component of the 'plural nursing sub-system' in the research area.

In the context of the specific focus on nursing of the elderly, it is appropriate to mention that, in order to reach the overarching objective of *Health for All* , the strategy of Primary Health Care of the World Health Organisation (1978) has recently shifted towards the *Millenium Development Goals* (MDGs) of the United Nations (UN 2015), which, in turn, have recently been extended to the *Sustainable Development Goals* (SDGs) of the United Nations (UN 2030). The SDGs aim at the realisation of 17 objectives with 169 success indicators, being more complex than the MDGs. In principle, the MDGs (2015) focus on the broad issues of sustainable development in developing countries, including Indonesia, whereas developed countries are regarded as the donor countries. The basic concept of the SDGs (UN 2030) is development with a focus on a balance in the economy, the social system, the environment, and good governance (*cf.* Sachs 2015; UN 2015).

The distinctive attention for such a balanced process of development is a useful extension of the MDGs (UN 2015) (*cf.* Le Blanc 2015). Indonesia is one of the countries which has adopted the SDGs (UN 2030), and has undertaken its role in national development in order to render better health for people living in rural communities and create better living conditions for everyone.

1.2 The Plural Medical System (PMS) in Indonesia

1.2.1 Complementary Medical Systems and Nursing Sub-Systems

Scientific interest in the study of indigenous knowledge systems in relation to various sectors of rural communities has increased substantially in the course of the second half of the 20th century, including medicine alongside agriculture, forestry, fisheries, natural resources, etc. A growing number of academic studies have been carried out by scientists of anthropology, medicine and economics, in which the focus is laid on the role of the indigenous systems of knowledge, beliefs, practices and institutions in the process of achieving sustainable development of the communities concerned.

At Leiden University, the Leiden Ethnosystems And Development Programme (LEAD) was established in 1987 later entering a successful collaboration with the *Center for Indigenous Knowledge for Agriculture and Rural Development* (CIKARD) at Iowa State University (USA) and the *Center for International Research and Advisory Networks* (CIRAN) in The Netherlands. At LEAD, several studies were successfully conducted in different culture areas including East Africa: Buschkens & Slikkerveer (1982); Slikkerveer (1982, 1990; 1995); Ibui (2007); Chirangi (2013); and De Bekker (2020); the Mediterranean Region by Slikkerveer (1996); and Aiglsperger (2014); and South-East Asia by Agung (2005); Angerler (2009); Leurs (2010); Djen Amar (2010); Ambaretnani (2012); Saefullah (2019); and Ferbriyanti (2021). Some of these studies have documented and analysed the often co-existing different medical systems in developing countries; the plural medical system in Indonesia has also equally been documented to encompass traditional, transitional and modern organisations, all often providing complementary medical care to the population. A central theme in most of these studies is the health and illness behaviour of clients and patients, who seek to promote their health, or in the case of symptoms, tend to seek medical care from the available different components of the plural medical system.

In addition to the study of clients' 'health behaviour' in seeking promotive and preventive health care, an understanding of the 'illness behaviour' of patients in terms of their utilisation of medical resources is needed for the design of future health care services in a particular region or country. The existing medical configuration of different systems and sub-systems of medical care in virtually all developing and developed countries, ranging from indigenous healers, traditional nurses, birth attendants, herbalists, faith healers, commercial drug vendors, and modern health personnel in hospitals and private clinics, has been providing clients and patients with a wide variety of medicines and treatments to improve health and treat illness.

As further elaborated in Chapter II, the related concept of 'medical pluralism' was introduced by Leslie (1976, 1978, 1980) in his research in Asian societies with a view to differentiating between traditional and modern medical systems. The underlying concept of the plural society in the medical sector was developed by Furnivall (1939) and later by Van Lier (1971). The paradigm of a plural society is described by Furnival (1939: 14) to identify the political process in plural societies by: *'the presence of two or more separate communities living side by side, but separately, in the same political unit; economic divisions also coincide with cultural divisions'*. The concept was thereafter elaborated by Slikkerveer (1982; 1990; 1995) in the field of ethnomedicine through the concept he introduced of 'transcultural health care utilisation' in the Horn of Africa. In addition to the documentation of the co-existing medical systems and sub-systems, the concept of 'medical pluralism' also provides a unique approach to studying the patterns of utilisation behaviour by the local population of different medical systems for future health planning, and was successfully implemented in various regions (*cf.* Slikkerveer 1995; Agung 2005; Ibui 2007; Leurs 2010; Djen Amar 2010; Ambaretnani 2012; Chirangi 2013; Aiglsperger 2014; Saefullah 2019; De Bekker 2020; and Ferbriyanti 2021). However, the ethnomedical documentations of the emic view on these systems in Indonesia are relatively few, and include recent studies by Slikkerveer & Slikkerveer (1990), Agung (2005), Leurs (2010), Djen Amar (2010), Ambaretnani (2012) and Ferbriyanti (2021). The current study in Sumedang links up with this important theoretical school of applied ethnoscience, specifically in ethnomedicine in West-Java, Indonesia. Along the cultural differentiation of the many ethno-cultural groups living in

Indonesia, the complex medical configuration shows the plural medical system in the country encompassing three main medical systems: traditional, transitional and modern medical systems, which are sub-divided by three comparative nursing sub-systems that include, respectively, ‘traditional nursing institutions’, ‘transitional nursing institutions’ and ‘modern nursing institutions’ (*cf.* Figure 1.2).

Since these systems and sub-systems have shown that they not only share a mission to jointly provide medical services to patients, but also seek to complete their mutual needs in the service of their patients**,** they are ‘complementary’ in the sense that these different components of the plural medical system join forces in order to improve their services. Moreover, patients often seek treatment for their complaints among different medical systems.

Plural Medical System	Traditional Medical System	Traditional Nursing Sub-System	Traditional Nursing Institutions
	Transitional Medical System	Transitional Nursing Sub-System	Transitional Nursing Organisations
	Modern Medical System	Modern Nursing Sub-System	Modern Nursing Organisations

Figure 1.2 Model of the Plural Medical System, Nursing Sub-Systems & Nursing Institutions/ Organisations in Indonesia
Source: Adapted from Slikkerveer (1990).

As an important component of the plural medical system, the traditional medical system has evolved over many centuries, where its roots go back to prehistorical times. As Kyomya (1994: 87) notes: “*historically, traditional medical systems and the use of traditional plant materials may be deemed to have started soon after the appearance of mankind*”. Through the ages, the body of knowledge, use and experience of natural medical resources evolved into traditional medical systems up until today. Traditional medical systems include non-commercial indigenous knowledge, beliefs and practices, mainly plant-based, such as *kearifan kesehatan lokal*, *ubar kampung* and *jamu*, being the traditional *materia medica,* also known as plant-based *‘home remedies’*. Traditional medicine is defined by WHO (1976) as: “*a total of all knowledge and practices, whether explicable or not, used in diagnosing, preventing or eliminating a physical, mental or social disequilibrium, which rely exclusively on past experience and observation handed down from generation to generation*”. With the general realisation that modern medicine cannot cure all diseases, traditional medicine, particularly for common illnesses and mental disorders, has not only provided the majority of people with their primary medical needs, but has also been adopted worldwide by other populations (outside indigenous cultures), often labelled ‘alternative medicine’. Several scientists have conducted applied-oriented research, guiding global trends in the recognition and dissemination of traditional medicine, not only among the national population groups in developing countries, but also in a wider context of the developed nations (*cf.* Bannerman, Burton & Chen 1978; Warren, Slikkerveer & Brokensha 1995; WHO 1978; 2002; Slikkerveer 2006).

Representatives of the traditional medical system are the *dukun* and the *paraji*. Their healing practices differ among the numerous ethno-cultural groups in the country, where the traditional healers use their extensive knowledge of *jamu* to invoke a supernatural context for their practices.

The transitional medical system as the hybrid component of the plural medical system includes an intermediate medical system characterised by the use of commercial drugs which operates between traditional and modern medical systems (*cf.* Slikkerveer 1990; Ambaretnani 2009). Slikkerveer (1982, 1990) introduces the concept of a transitional medical system, describing the medical system which is in transition from a traditional to a modern medical system.

As Slikkerveer (1982: 1863) elaborates: *‘Transitional medical systems can be defined as involving large-scale commercial production and sale of authentic pharmaceutical drugs and [modern] pharmaceuticals. Initially this institution referred to drug sales activities in developing countries,*

often illegally, where urban communities were generally in contact with modern medical systems which have become standard practice, while rural communities continue to depend on traditional medical systems'. The commercial activities of the drug vendors are taking place independently and unofficially on the basis of profit-making, and are functioning between traditional and modern medical systems (*cf.* Buschkens & Slikkerveer 1982 and Slikkerveer 1990). In addition, there are also non-government commercial clinics, which are operating between the traditional and modern medical system by selling over-the-counter medicines which seek to combine traditional medical knowledge and practice with the efficacy of industrially produced medicines.

Representatives of the transitional medical system are the *penjual obat* ('drug vendor'), who are selling their *obat* ('medicines') without prescription mainly in their *warung* ('stall') in the market place. Such 'medicines' are usually industrially packed plant-based products, food supplements, gender-enhancing remedies, and bleaches for lightening the skin.

The modern medical system as the cosmopolitan component of the plural medical system is also known as the 'scientific', or 'Western' medical system, which originates in the West in most globally-oriented countries, based on scientific principles of research, education and training, and which applies modern pharmaceutical medicines, most of which were developed in experimental research in laboratories and research universities on an industrial basis (*cf.* Aiglsperger 2014). As Slikkerveer (1982: 1863) notes: '*The modern medical system includes elements of scientific medicine originating in Europe in the late middle ages and eventually forming a cosmopolitan medical system which later evolved throughout the world'*.

Modern medical science as an applied-oriented field embarks on biomedical research and medical technology with the aim to diagnose an illness and treat the disease. In general, the doctor starts with a review of the patient's medical history, followed by an interview and physical examination. Sometimes, doctors can order clinical tests and prescribe pharmaceutical medicines or special therapies (*cf.* Ambaretnani 2009). In Indonesia, the modern medical system includes government health services, foreign medical aid agencies, profit-making health organisations, religious organisations, and private clinics. The representatives include Western trained medical doctors and specialists, nurses and health workers, who are providing modern medicine from Indonesia's health-service infrastructure.

1.2.2 The Plural Nursing Sub-System: Nursing Institutions & Organisations

Although the providers of nursing care are joining with other medical personnel in a complementary way to provide adequate medical care within the framework of the medical system concerned – traditional, transitional or modern – they are at the same time forming their own plural nursing sub-system, as other categories of care providers do, such as the 'general practice sub-system', the 'medical specialisation sub-system', and the 'medical auxiliary sub-system'. In view of the fact that the three medical systems of the 'plural medical system' in Indonesia provide the overarching theoretical and practical framework of the directly related 'nursing sub-systems', the latter are similarly encompassing the 'traditional nursing institutions', the 'transitional nursing organisations' and the 'modern nursing organisations' of the country.

For the study of the 'plural nursing system' in Sumedang, it is appropriate to link up with the international theory of the study and analysis of institutions and organisations in different dynamic settings of sustainable development, differentiating between the concepts of institutions and organisations in line with the theoretical foundations of applied ethnoscience. As mentioned above, the ethno-scientific approach delineates useful working definitions from the emic, *i.e.* the participants' point of view, which is playing a crucial role in their process of utilisation behaviour. As will be further elaborated in Chapter II on the theoretical orientation of this study, the point of embarkation is based on the working definitions underlying the research and analysis of the data collected in the household surveys in Sumedang.

Recently, endless disputes over the definitions of key terms in this field seem to dominate the literature, particularly regarding 'institutions' and 'organisations'; it is therefore not possible, as Hodgson (2006: 1) argues: *'to carry out any empirical or theoretical analysis of how institutions or organizations work without having some adequate conception of what an institution or an organization is.'* As regards such an empirical definition of a 'traditional nursing institution', the classical definition of institutions by Leach *et al*. (1999: 238) states that they refer to: *'regularized patterns of behaviour that emerge from underlying structures of sets of "rules"'*. Horton & Hunt (1984) define an institution as: '*an organised system of social relationships which embodies certain common values and procedures and meets certain basic needs of society'*.

A more practical ethnoscience-based definition of 'institutions' in relation with 'organisations' is provided by Blunt & Warren (1996: viii): *'those often invisible local-level institutions which are indigenous as opposed to exogenous organisations in the community and which are based on the principles of non-profit mutual aid and communal work at the community level'*. These scientists clearly define the differentiation with 'organisations': *'exogenous organisations established through forces external in the community, which are characterised by profit-making objectives'*.

Furthermore, Slikkerveer, Baourakis & Saefullah (2017: 18) refer in particular to exogenous organisations as: *'profit-making externally-introduced associations of Western-oriented credit unions, cooperatives, rotary clubs etc. in the role of technical assistance in the economic development process.'* Their conceptualisation of 'institutions' is rather useful for the study in Sumedang, as they also elaborate on the characteristics of traditional institutions: *'those local-level institutions – informal and sometimes invisible to the outsider – rooted in the history of the community, which embody the local systems of knowledge, beliefs, practices, values and norms, and are based on strong communal principles of mutual aid, neighbourhood cooperation and collective action, where the interests, resources and capacities of many community members are structurally joined together in order to achieve common goods and services for the entire community in a non-commercial way.*' Moreover, Slikkerveer (2017) points at the overriding significance of the underlying traditional emic principles of *gotong royong* ('mutual assistance and communal work') of non-profit mutual assistance and communal work at the community level.

In line with these underlying traditional emic principles of *gotong royong*, encompassing the two above-mentioned principles of non-profit mutual aid and communal work of the local people in the communities, the conceptualisation of *perawatan tradisional* ('indigenous system of nursing knowledge, beliefs and practices') can similarly be traced back to both local principles within the context of medical care, which in turn are crucial in the differentiation between 'nursing institutions' and 'nursing organisations' in the research area of West-Java.

An important theoretical innovation which has been introduced in this kind of ethnoscience research at the community level is that the recent international debate on the role of indigenous institutions in development is seeking ways to compare them with exogenous organisations, with a focus on the opposition of the indigenous *versus* the endogenous origin of activities and events, which possesses rather important implications for sustainable community development in several sectors, including nursing. Based on the above-mentioned conceptualisations, the differentiation of the three components of the 'plural nursing sub-system' in West-Java, *i.e*. the 'traditional nursing sub-system', and the 'transitional nursing sub-system' and 'modern nursing sub-system', can be subdivided in the following three working definitions of this important subject matter, as selected for the research in Sumedang:

- The Traditional Nursing Institution (TNI), which refers to regularised behaviour of traditional nurses towards their patients which embody their traditional system of nursing knowledge, beliefs, practices, values and norms, based on non-commercial principles of mutual aid and communal action to achieve the common goal of the community's improved health. The traditional nursing practices are usually taking place in a traditional location in the family homestead in the community, characterised by the endogenous provision of nursing to families and fellow community members, accompanied by the implementation of non-profit principles;

- The Transitional Nursing Organisation (TNO), which refers to regularised behaviour of transitional nurses towards their patients which embody their transitional system of nursing knowledge, beliefs, practices, values and norms, based on commercial principles of assistance to achieve the goal of the community's improved health . The transitional nursing practices are usually taking place in a transitional location at the market places near the community, characterised by the hybrid provision of nursing, based on an exogenous influx of organisations into the communities, accompanied by the implementation of profit-making principles; and

- The Modern Nursing Organisation (MNO), which refers to regularised behaviour of modern nurses towards their patients which embody their modern system of nursing knowledge, beliefs, practices, values and norms, based on commercial principles of assistance to achieve the goal of the community's improved health. Modern nursing practices usually take place in a modern location away from the patients' homestead, characterised by the exogenous provision of nursing by modern trained nurses in hospitals, health centers and clinics to their clients and patients, accompanied by the implementation of profit principles.

These three components as part of the 'plural nursing sub-system' are also represented in the analytical model, where they are established in three separate 'blocks' of dependent variables, *i.e.* traditional nursing institutions, transitional nursing organisations and modern nursing organisations. The stepwise analysis measures the reported utilisation behaviour of each 'block' by the participants over the preceding years of the research in relation with the independent and intervening variables. These three components of the 'plural nursing sub-system' will be described in the next Paragraph. Chapter III further elaborates on the design of the related conceptual analytical model, selected for the study in Sumedang.

1.2.3 The Traditional Nursing Institution: *Perawatan Traditional* (TNI)

The above-mentioned elaboration of the concept of traditional institutions by Slikkerveer, Baourakis & Saefullah (2017: 18) is useful for the study of the 'traditional nursing institutions' in Indonesia, as they provide the basis for the working definition of the research in Sumedang. The traditional nursing institutions refer to regularised behaviour of traditional nurses towards their patients, which embody their traditional system of nursing knowledge, beliefs, practices, values and norms; traditional nurses implement their acquired traditional nursing skills *kearifan kesehatan lokal* as non-commercial providers of care, specifically for the elderly in the community. In this way, they are able to apply *perawatan tradisional* ('indigenous system of nursing knowledge, beliefs and practices') for their clients and patients. The traditional nursing practices usually take place in a traditional location in their family homestead in the community, characterised by the endogenous provision of nursing to families and fellow community members, accompanied by the implementation of non-profit principles.

The *Basic Health Survey of Indonesia* (2013) states that the related traditional medical system is to a large extent used by the population and consists of four types of treatment. Complementary to the traditional medical system, the 'traditional nursing institution' is similarly characterised by these four basic types of treatment, used by traditional nurses, such as *jamu*, *gurah* ('herbal therapy'), homeopathy and spa, and traditional practices with instruments, including acupuncture, chiropractic, *becam* ('cupping'), *ceragem* ('massage'), and acupressure. Treatments without instruments include massage-sequencing, mother/baby massage-sequencing, fracture treatment, and reflection. Traditional treatments for mental disorders include hypnotherapy, *prana* ('meditation'), and concentration on the inner energy. De Padua *et al.* (1999) indicate that in traditional medicine, herbal medicine refers mainly to the use of indigenous medicinal plants in the home countries. Zhang (1998) defines 'herbal medicine' as any plant, such as herbs, shrubs, trees or fungi, which are used alone or in combination with other plants for health and healing.

Slikkerveer (1995) introduced the rather inclusive concept of Medicinal, Aromatic and Cosmetic (MAC) plants, providing an emic-oriented view of indigenous healers and theior clients. In general, the concept of herbal medicine includes raw and processed plant ingredients with therapeutic or health benefits, as well as unique herbal products. As Riskesdas (2013) reports, a total of 89.753 of the 294.962 (30.4%) households in Indonesia have utilised the 'traditional nursing system' in the past year. The traditional nursing system utilised by the majority of households is providing treatment without instruments (77.8%) and potions (49.0%). The data show that in the traditional nursing system, there is also a tendency of 'going back to nature', documenting a high interest in traditional ways of maintaining health and well-being. The use of herbal medicines is increasingly popular, especially in rural areas because of its affordability, easy accessibility and cultural attachment. Furthermore, the growing disappointment with the failure of modern medicine to provide adequate and affordable treatment for certain diseases has also aroused renewed interest in the use of herbal medicine, in both developing and developed countries.

Used as a form of safe self-care, herbal medicines have also been identified as rapidly growing components of Complementary and Alternative Medicine (CAM) in Western countries, recently gaining a strong position in the world market (*cf.* Eisenberg 1993; WHO *et al.* 1993; Zhang 1998; WHO 2002a; Slikkerveer 2006; Lynch & Berry 2007; WHO 2012). Indonesia's health profile, released by the Ministry of Health (2012), documents that the number of districts/cities which use alternative, complementary and traditional treatments in Indonesia amounted to 103 districts/cities or around 20.7% of 497 districts/cities. The figure indicates that in Indonesia as primarily a multicultural country, indigenous medical knowledge plays a significant role in the 'traditional nursing system', which should be further developed to achieve an improved nursing system.

Warren, Slikkerveer & Brokensha (1995: xv) have defined Indigenous Knowledge as local knowledge: '*unique to a particular culture or society and in contrast to the international knowledge system produced through a global network of universities and research institutions'*. Modern knowledge systems are often identified as scientific and opposed to traditional knowledge systems.

Nevertheless, this research follows a line of reasoning, in which the practice of science, coupled with trust and magic, forms the universal characteristics of human society where both local and international knowledge systems can be considered scientific. Slikkerveer (1995), Molenaar (1999) and Aiglsperger (2014) provide examples of local classifications of diseases and local MAC plants, rooted in evidence-based concepts which are understood together, and as such equally qualify as scientific doctrine. In his research in ethnobiology, Berlin (1994) is well known in the field of ethnobiology, or the study of how people name, use, and organise the names and knowledge about plants and animals in their environment. He also developed Folk biology, a sub-field of ethnobiology which refers to the biological classification in a cultural group, widely regarded as a major theory in ethnoscience.

Kearifan kesehatan local, or the system of traditional medical knowledge, is a manifestation of the local medical wisdom used by people as well as by the traditional healers and nurses in a community. According to Sedyawati (2006), the term 'local wisdom' should be interpreted as the wisdom of traditional ethno-cultural groups. In natural resources management, *Kearifan local* ('traditional knowledge') has shown to be the best form of environmental conservation (*cf.* Hidayat 2000). The word "wisdom" itself should also be understood in its broadest sense, not only as cultural norms and values, but also as elements of ideas, including those underlying technology and aesthetics.

Indrawardana (2012) shows that the *kearifan kesehatan lokal* of the Sundanese people with regard to their health is basically taken from the worldview of older Sundanese people who are living in farming communities. Saefullah (2020) has shown the significance of such worldviews in sustainable community development in Subang. As the main part of the traditional medical system of knowledge, beliefs and practices in the context of the traditional nursing sub-system, *kearifan kesehatan lokal* is the focus of this research, forming the basis of the traditional nursing institutions, specifically among the elderly who have CVD in the Sundanese ethno-cultural groups in Sumedang. As mentioned before, most elderly prefer to continue to stay and live with their families, or in senior housing facilities in the community. A special role of the traditional nursing institutions is their advice and

guidance to the elderly with CVD in their housing and daily life in their communities. In this way, the traditional nurses seek to focus their treatment of the elderly on the traditional knowledge, beliefs and practices which they have experienced during their lifetime, and as such, to promote the elderly to stay in their own houses or with their families in the community. In a broader context, the provision of traditional nursing for the elderly with CVD is an integral part of comprehensive health services aimed at individuals, groups, and communities with physical, mental, and social disorders in different nursing settings.

1.2.4 The Transitional Nursing Organisations (TNO)

Based on the above-mentioned working definition of the 'transitional nursing institution' which refers to regularised behaviour of transitional nurses towards their patients, embodying the transitional system of nursing knowledge, beliefs, practices, values and norms, it is similarly useful for the study in Sumedang, as such behaviour is based on the commercial principles of providing services to achieve the goal of the improved health of their clients and patients. Since the transitional nursing practices usually take place in a transitional location at market places near the community, the hybrid provision of nursing, based on the exogenous influx of organisations in the communities, is accompanied by the provision of largely modern packages with pharmaceutical medicines or drugs, promoted with traditional knowledge and experience in order to popularise their services among their clients (*cf.* Figure 1.3).

The transitional locations from where transitional nursing are usually practiced near the family homesteads in the community, characterised by the hybrid provision of nursing by traditional indigenous institutions and modern exogenous organisations. These orgnisations have emerged from an exogenous influx of health agencies into the communities, accompanied by the transition from non-profit to profit principles. These transitional nursing organisations are often introduced as nursing agencies from outside which seek to provide their services on a commercial basis. As regards their practice, transitional nurses are usually not certified, and have no formal training, but their practice is partly based on traditional medical knowledge and experience, and partly on their knowledge of pharmaceutical medicines, often in combination with traditional medicines.

Illustration 1.2. Samples of Transitional Medicines for Backache and Rheumatism Found in the Market and Sold by Drug Vendors.
Source: Ambaretnani (2012).

De Padua *et al.* (1999) note that such pharmaceutical drugs refer to medicinal plants from which active components have been isolated and mixed. As regards the provision of transitional nursing to the elderly with CVD, the treatment is not only focused on the administration of common medicines with general efficacy on the patients' health and disease condition, but specifically on the promotion of the health of the elderly with CVD through the provision of the individually-oriented socio-cultural and mental care of connectivity and affiliation with their cultural customs, norms, values, expectations, and worldviews.

As indicated above, most elderly prefer to continue to stay and live with their families, or in senior housing facilities referred to as 'traditional nursing institutions' in the community. The main role of the traditional nursing institutions is the advice and guidance of the elderly with CVD in their housing and daily life. In this way, transitional nurses seek to find a balance in their treatment of the elderly between, on the one hand, their traditional knowledge, beliefs and practices, and on the other, the benefits of treatments with modern medicines.

1.2.5 The Modern Nursing Organisations (MNO)

Embarking on the above-mentioned working definition of the modern nursing organisations being a set of regularised behaviours of modern nurses towards their patients which embody their modern system of nursing knowledge, beliefs, practices, values and norms, their practical framework is provided by Western medical knowledge and practice, sometimes called 'cosmopolitan medicine'. In line with the worldwide principle of primary health care, the modern nursing organisations operate on commercial principles of assistance to achieve the goal of improved health for all citizens. The modern nursing practices are usually taking place in a modern location away from the patients' homestead, characterised by the exogenous provision of nursing by modern trained nurses in hospitals, health centers and clinics to their clients and patients, accompanied by the implementation of profit principles.

In Indonesia, the implementation of nursing practice is carried out in accordance with a nursing care plan which has usually been agreed between the client and his/her family and the nurse. The implementation of nursing practice is carried out by formally trained nurses with appropriate levels of authority and must be guided by professional standards which include competency standards, practices, education, and ethics. The process and results of nursing must always be evaluated and monitored continuously, followed by revisions and modifications in accordance with the results of the evaluation and monitoring, in which the objectives have been formulated with the client. The objectives can be the disappearance of symptoms, reducing risk, preventing complications, increasing the knowledge of skills and health, including preparing for the death of the client with peace and dignity. Nursing provisions focus on clients' needs and expectations which can be held in all nursing facilities/settings, both in general and specialized hospitals, health centers, home nursing practices (home health nursing), nursing practice groups, and individual and cellular/ambulatory nursing practices. Nursing practice is carried out by paying attention to the affordability of the community to obtain nursing services. In this case, the nurse plays a professional role in the universal health system. Community health nurses in charge of the community act as coordinators of all efforts in the primary health centers and provide public health services including facilitating the community in optimizing all the capabilities of the community to improve their health status.

The development of referral behaviour in the community in determining treatment search decisions requires the *puskesmas* to become a service system which can incorporate referral systems that occur in the community. As stated by Wachjoe, Sutedjo & Abisudjak (1980) in Logo (1980), *puskesmas* as a modern nursing organisation plays a role in a fraction of the results achieved in the overall *development* of public health, the rest of which have been achieved by other health institutions developed by the community, both through self-medication and traditional medicine, while others may also play an important role. The practice of nursing to solve health problems for individuals, families, or communities can be done through independent nursing interventions or collaborative working with a health team or across sectors. Nursing care services can be provided at health facilities

and independent nursing practices. Independent nursing interventions include therapeutic nursing interventions, complementary therapy, and health counselling. Providing education and advocacy in the context of solving health problems through fulfilling basic human needs and client independence is an effort to overcome health problems in line with government programmes. A comprehensive nursing assessment is conducted with the intention to identify the health conditions faced by the client and the cause of the disorder. Recognising the disorder and its causes appropriately will support the preparation of nursing interventions effectively and efficiently. Hence, the nursing action plan is based on the client's needs.

Thus, the present description of the development of 'community health nurses' in Indonesia links only with the government's modern nursing delivery system, which has sought to extend the modern health programmes of the *puskesmas* with community-oriented nursing care, known as 'community health nursing'. As mentioned above, the term 'community health nursing' has been defined by WHO (1959, 1974) and the *American Nurses Association* (1973), as well as by scholars including Freeman (1960), Chang (1982), Azwar (1983) and Depkes Republik Indonesia (1985, 1990, in Effendi 1995). Within the context of Indonesia, Effendi (1995) summarises 'community health nursing' by referring to special nursing services combining nursing, community health and social services which are an integral part of the health treatment of individuals, families and the community through the provision of promotive, preventive, curative, rehabilitation and socialisation services. The main objective of 'community health nursing' is to undertake as much as possible the modern medical treatment in the community itself, instead of in the hospital. As elaborated in the next Paragraph, the Ministry of Health introduced in 1993 a special 'primary nursing approach' for the care of chronic diseases among the elderly.

1.3 The Challenge of Transcultural Nursing of the Elderly

1.3.1 The Primary Nursing Approach of the Elderly

The existence of various health problems among the elderly as a result of the demographic expansion, the recent epidemiological transition and, of course, their age is posing a specific challenge for the Government of Indonesia. The Ministry of Health has formulated a policy related to a special programme for the management of chronic diseases among the elderly with a special 'primary nursing approach'. The legal basis in the need for the special management of elderly groups in Indonesia is provided in subsequent laws, including Law Number 23, Article 19 (1992), Law Number 13 (1998), Government Regulation Number 43 (2004), Law Number 36, Article 138 paragraph 1 and 2 (2009).

In 1993, the 'primary nursing approach' was further developed in the form of early detection and health examinations of the elderly by using the *Kartu Menuju Sehat Lansia* ('Health Card for the Eldery') as a document to record the results of the examinations at the *Posyandu Lansia* ('Elderly Integrated Service Post'/'Integrated Development Post for Seniors'). In 2005, the Ministry of Health compiled the '*Guidance for Elderly Community Health Centers'*, which aims at improving the quality of life of the elderly and their independence in preventing and overcoming health problems. These activities are part of the 'primary nursing approach' with the objective to increase the targeted planning and the implementation of health services for the elderly, in order to provide proactive, comprehensive, and high-quality care. The new approach was designed to facilitate older people to obtain health services, reduce their morbidity and mortality resulting from various diseases, especially chronic degenerative diseases, and improve the quality of life of the elderly, enabling them to be productive and happy (*cf.* Ministry of Health 2012; Hunter & Reddy 2013).

The 'primary nursing approach' emphasises health promotion and protection of the elderly, especially in various chronic diseases, known as *penyakit tidak menular* (PTM) ('non-communicable diseases'). The implementation of the 'primary nursing approach' through a well-managed health center for the elderly must have adequate, quality services, providing convenience in health services to the elderly. Moreover, it should provide relief or elimination of nursing costs for the elderly who cannot afford paid/expensive care, provide support and guidance through various promotional

activities, and health protection in maintaining and improving their health in order to stay healthy and independent, carry out proactive services so as to reach as many elderly patients as possible through the *puskesmas*, and conduct cross-sector cooperation at a certain regional level with the partnership principle to jointly conduct guidance in order to improve the quality life of the elderly. The various approaches of primary nursing are focused on early detection efforts, empowerment of families, and to carry out holistic and comprehensive care through strategies, including health education, group processes, family empowerment, cross-sectoral partnerships, and the use of effective financial management (*cf.* Stanhope & Lancaster 2004; Ministry of Health 2009; 2010). Similarly, the 'primary nursing approach' can improve self-care and self-management in health and social life every day.

In line with the WHO declaration of Alma Atta (1978) on 'primary health care', the 'primary nursing approach' places more emphasis on health promotion efforts, health policy formation, and prevention of diseases of the elderly (*cf.* Potter & Perry 2010). Stanley & Beare (2007) show that the elderly themselves were very interested in health promotion. Elderly groups predominantly apply behavioural outcomes to health promotion compared to younger ages. It is important to use a creative approach in health promotion activities and to include these activities in all health service environments, including the family environment, and the community (*cf.* Ministry of Health 2010). Similarly, the 'primary nursing approach' can improve self-care and self-management in daily health and social life. The elderly people and their family are educated in being able to use knowledge, attitudes, and behaviour in their activities to improve their own health and that of their community. The 'primary nursing approach' also aims at improving the ability of clients – ranging from the level of individuals, families, and community groups – to be self-reliant in preventing and overcoming the health problems which they experience and protect the elderly from various chronic diseases (*cf.* Stanhope & Lancaster 2004). Landon (2007) explains that an increase in a healthy lifestyle can prevent the occurrence of severity and complications of chronic diseases by 40%, so that it can improve the quality of life of the elderly until the end of their lives. The implementation of various primary health service activities in the form of nursing for the elderly with the strategy of a well-organised health center for the elderly needs to refer to the principles of effective and efficient management, starting from planning, implementation, monitoring, and evaluation.

The expected results can be achieved from the 'primary nursing approach' in the management of chronic diseases among the elderly which include: a) decreased use of health services for treatment, especially in severe conditions, b) increased functional status, c) improved quality of life for the elderly, and d) decreased mortality due to chronic uncontrolled diseases among the elderly. Indicators of prevention and control of non-communicable diseases are contained in the *Strategic Plan* of the Ministry of Health 2015-2019.

Indonesia is one of the countries with a very rich biodiversity. Out of the 40,000 species of flora existing in the world, as many as 30,000 species are found in Indonesia. About 940 of these species are known to be efficacious as medicines and have been used in traditional medicine for generations by various ethno-cultural groups in Indonesia. The rich biodiversity of MAC plants is a national asset of high value for the development of the pharmaceutical industry around the world. Today, there is a tendency in the philosophy of life to return to nature ('back to nature') which is also manifest in the belief that the consumption of natural medicinal ingredients is relatively safer than the consumption of industrial medicines. The WHO (1985) predicted that around 80% of the world's population had used medicinal plants (herbal medicine, phytotherapy, phytomedicine or botanical medicine) for their nursing needs (*cf.* Peters & Whitehouse 2000 in Aswani 2016), thus affecting the world's high demand for natural medicinal ingredients; thus, market prospects of medicinal plants in Indonesia both domestically and abroad have greater opportunities.

The use of MAC plants with the aim of healing is among the oldest forms of treatment in the world. Every culture in the world has a unique system of traditional medicine, and in every region, there are also many kinds of plants that can cure some health problems. Today the use of traditional medicine by the community is used as a way of treating themselves. Traditional medicines applied to combat folk diseases in formal health services is still lacking or has not been used in formal health services such as health professionals and doctors who are generally still reluctant to prescribe or use

these medicines. Such practice, however, is different from the use of traditional medicines in several neighbouring countries such as China, Korea, and India, which integrate traditional methods and treatments within the formal health service system.

The main reason for the reluctance by modern health personnel to prescribe or use traditional medicines is because scientific evidence of the efficacy and safety of traditional medicines in humans is in many cases still lacking (*cf.* Pramono 2002 in Aswani 2016). The unfamiliarity of traditional medicine by modern health personnel renders them to prioritise client safety and security and protect patients from possible side effects. Indonesia being a tropical country, is well-known as a producer of various agricultural products, including MAC plants. The fertile soil conditions and tropical climate, supported by the diversity of the flora has promoted the production of medicinal ingredients of natural origin. In everyday life, the use of plants with medicinal properties is often practiced by the community as readily available traditional medicine.

There are so many types of MAC plants with many properties and different compounds. Indonesia's rich biodiversity has also the potential to discover new medicines, including antioxidants. Many plants have medicinal, aromatic and cosmetic properties with a preventive function to protect the human body so that it does not get sick or the disease becomes severe. In some cases, the use of MAC plants as drugs has the potential to make the body less susceptible to disease; thus, if there are symptoms of illness, it could prevent further development of the illness.

Several government programmes and plans have been carried out including traditional nursing providers; unfortunately, they have not looked specifically at how the cultural aspects of the community influence health behaviour patterns, or health practices based on the local health wisdom that the community adheres to. Although there has recently been growing interest among the younger generation in Indonesia's national cultural heritage, such obedience to and practices of indigenous traditions are found mainly among the elderly or old members of society. Indigenous medical knowledge systems tend to persist and become evident in their health behaviour and the handling of their diseases. They tend to maintain their noble values and attitudes as part of their local system of knowledge, beliefs, and practices in many sectors of society, including health and disease. In Indonesia, the values, beliefs, norms, and practices of individuals or groups tend to play an important role in the use of culturally appropriate nursing in health centers or hospitals. Traditional beliefs and practices among the elderly are often a manifestation of their loyalty to their traditions and respect for their ancestors as part of the cosmology of society, and they have important psychological significance in health. Healing is their commitment to secure that cultural heritage is able to create satisfaction in their lives. Thus, it is vital to recognise and understand this psychological view and develop it into a determining factor in nursing practice, especially among the elderly with CVD. In the end, it has a strong influence on achieving a better quality of life for the elderly. In this context, it is crucial to study what factors play an essential role in providing traditional, transitional and modern nursing practices in the management of CVD with special attention to aspects of indigenous knowledge, beliefs and practices in patients from different ethno-cultural background in Indonesia, especially in the Sundanese ethno-cultural groups in Sumedang.

Basically, efforts to improve health and prevent disease, as well as community empowerment, can be met by traditional health services which are oriented towards efforts to nourish and maintain the body while increasing the quality of life of a person. Increased awareness, motivation, and the ability of the community to live healthy will accelerate the achievement of optimal health status. By conducting independent care, this means that the community has tried to change the paradigm of curative medicine to be promotive and preventive, which is beneficial in the efficiency and effectiveness of families to maintain the health of themselves and their families.

In accordance with the advice of the Minister of Health, it is expected that community visits to the *puskesmas* are in the context of a health consultation and not to treat the illness. In an effort to treat the pain or illness, the community can use all the resources around them, including using traditional medicines made from natural ingredients which can be obtained from the home yard, commonly referred to as TOGA (‘Family Medicine Garden’). TOGA is usually producing a group of MAC plants which are grown in small gardens near the home, (*cf.* Slikkerveer & Slikkerveer 1995 in Waren,

Slikkerveer & Brokensha 1995; Hampp 1999). The community can practice independent health nursing by utilising TOGA. Independent health nursing is an effort to maintain and improve health, and prevent and treat minor health problems independently by individuals in families, groups, or communities by utilising TOGA.

1.3.2 The Need for Integration of Transcultural Nursing

From the perspective of integration, the *puskesmas* should provide a form of hybridisation between modern and traditional health care. Thus, in order to bring these two systems together, changes are needed in the characteristics of the providers and the community itself, so that the health services are acceptable to both systems. In other words, the existing medical system has to be adapted to the cultural system of the community so that changes in the health care system can be carried out by the community itself, where community health nurses will act as a catalyst and change agents. In response, the community health nurses as representatives of the *puskesmas* must understand and try to bridge the concepts of knowledge, beliefs, and practices existing in the community with modern concepts implemented along their mission to improve community health. As Slikkerveer (1990) documents, in the past, medical doctors in the West only focused their attention on biomedical, technical and modern nursing organisations, without considering the relationship between culture, society, and traditional medicine. Such approach is in contrast to the anthropological view of studying the socio-cultural aspects of health and disease in different groups. Subsequently, by improving the health service system, an integrated and interdisciplinary approach to the study of health systems, which developed into a new, holistic approach through ethnomedical practice, which provides useful information on different systems based on indigenous knowledge, beliefs, and practices in the context of health and healing. These patterns of human care and healing can be identified if an anthropological and nursing perspective is integrated.

There are 1,340 recognised ethno-cultural groups in Indonesia, of which the vast majority belongs to the Austronesian peoples, with a large minority of Melanesian peoples, spread over more than 17,000 islands (*cf.* Na'im, A. & Syaputra, H. (2011). Such cultural diversity represents a large variety of local knowledge systems and lifestyles of various population groups. There are different kinds of cultural perspectives on health and disease related to knowledge, beliefs, values and practices manifest in various forms of lifestyles and livelihoods in Indonesia. The cultural diversity of the population is also related to the differences in health behaviour (*cf.* Loredan & Prosen 2013). Sharon (2008) states that health inequality can occur as a result of several factors, including distrust of the relationship between the nursing providers and patients (*cf.* Betancourt *et al.* 2003; Cort 2004; Perloff *et al.* 2006; Kennedy *et al.* 2007). In response to the call from patients with CVD mainly living in local communities to pay attention to traditional knowledge and practices regarding the management of CVD, a non-pharmaceutical approach has been introduced as part of an advanced complementary CVD management system. Further research is needed on the role of socio-cultural factors and their overall influence, as well as the relationship between relevant factors which determine the behaviour of elderly people with CVD in terms of utilisation patterns of the plural medical systems. Ineffective communication has been widely documented between nursing personnel and patients (*cf.* Kaplan *et al.* 2006; Saha *et al.* 2003; Sheppard *et al.* 2004). Cooper-Patrick *et al.* (1999) mention not only the lack of active participation between patients and nursing professionals in determining decisions, but also the negative behaviour by nursing providers in interpersonal relationships. According to Smedley *et al.* (2003) health inequality occurs when there are differences in the provision of nursing services to certain ethno-cultural groups, both individuals and groups, or organisations in terms of quality nursing; access to nursing at various levels and clinical conditions are inadequate in various groups, including for women, children, the elderly, rural residents, and those who have special limitations and needs. However, nursing as a profession has to be able to advocate support for clients to obtain holistic care in an effort to meet the needs of all, regardless of their ethno-cultural background and their diverse beliefs and values about health and nursing (*cf.* Prosen 2003; Sharon 2008). There is an evident need for a cadre of nurses capable of providing their services which take the cultural

background of the clients into consideration. Nurses must have culturally sensitive nursing competencies as a strategy to deal with health inequalities and to improve nursing outcomes for their clients (*cf.* Sharon 2008). As Prosen (2015) argues, nurses should be able to recognise the cultural background of their patients so that the treatment is culturally appropriate to their needs. Nurses' skills in viewing the integration of culture differences in more critical thinking about nursing will increase their knowledge and abilities as a basis for providing a transcultural form of nursing services (*cf.* Andrews & Boyle 2002; Leininger & McFarland, 2002). According to Jeffreys (2006), patients have the right to receive culturally competent nursing services; the concept was firstly introduced in 1954 by Leininger (1977) as the instigator of the theory of transcultural nursing.

Reynolds & Leininger (1993) state that nurses must be able to provide culturally sensitive nursing services to patients in order to achieve patient satisfaction. Douglas *et al.* (2011: 319) argue that: *'Understanding the cultural values and beliefs of a person and other people's cultures is important; the nursing provided has to not only be appropriate, but it has to be considered sufficient to meet the needs of patients, families, communities, and residents'* Carr & Knutson (2015) underscore that in order to achieve cultural competence, nurses must be able to understand the views and culture of patients and avoid stereotypes or misuse of scientific knowledge. Thus, it is important to study indigenous medical knowledge systems among diverse ethno-cultural groups in Indonesia as a foundation for nurses in providing their services to clients on the basis of their culture and beliefs in order to achieve the goal of nursing on an optimal level of client satisfaction.

Every effort to improve cultural competency among nursing practitioners who work with diverse clients from 1.340 ethno-cultural groups in Indonesia is a challenging effort. One step which can be taken is to learn and understand the Sundanese people as an important cultural group in West-Java. The Sundanese population of more than 35.5 million people has increased significantly, rendering it the second-largest in Indonesia after the Javanese (*cf.* Ambaretnani 2012). It certainly requires special skills to include local traditions such as *kearifan kesehatan local* ('local medical knowledge') for an in-depth understanding of social behaviour and public health. Thus, a more in-depth description and analysis of transcultural nursing practices of the elderly in the community is needed to analyse and integrate traditional knowledge, beliefs and practices for improved nursing. Research on indigenous medical knowledge systems in the provision of culturally sensitive nursing practices for the elderly with CVD in Sumedang provides evidence of the importance of socio-cultural factors in the behaviour of their diseases, and the importance of integrating these factors into transcultural nursing practices into a comprehensive system of nursing care of the elderly with CVD. In this way, this research contributes to the development of transcultural nursing knowledge and practices for the benefit of the elderly with CVD. The results of the study will also form the basis for the development of appropriate guidelines for nursing education and training, especially nursing for the elderly with CVD in West-Java and other regions in Indonesia. By consequence, this study embarks on a comprehensive understanding of how community nursing practices of the elderly link up with the traditions concerning the care of the elderly among the Sudanese population. Recent studies show that the use of Indigenous Knowledge Systems provide the basis for a transcultural model of nursing utilisation introduced by Slikkerveer in his research in the Horn of Africa (1990; 2005), and further elaborated and implemented by several scientists, including Ibui (2007) in Kenya; Agung (2005) and Leurs (2010) in Bali; Djen Amar (2010), Ambaretnani (2012), Saefullah (2019) and Febriyanti (2021) in West Java; Aiglsperger (2014) in Crete, and Chirangi (2013) and De Bekker (2020) in Tanzania.

The transcultural health care utilisation model significantly introduces a dynamic approach to create sustainable cultural awareness to local communities (*cf.* Slikkerveer & Dechering 1995). The integration approach is also implemented in the Presidential Decree No. 72/2012 which regulates the National Health Care Delivery System in Indonesia. The Decree states that the National Health Delivery System in a region has to prioritise the local potential and resources in order to obtain positive results which can be measured quantitatively, and to increase community participation in maintaining the physical and mental health of the community members. Thus, each regional policy has to comply with this decision, although in practice, it can be more flexible to adapt to the local customs, practices, needs and resources.

1.3.3 Comparative Nursing Utilisation Research for Policy Planning

For the planning of these different forms of nursing care of the elderly with CVD, the study and analysis of the illness behaviour of patients in the nursing sub-systems is important. Such research seeks to answer the central question of what actions the elderly with CVD will undertake in order to find appropriate nursing care, conceptualised in patterns of utilisation behaviour. In his classical study, Suchman (1963) describes this process of illness behaviour, in which the individual undertakes subsequent steps from one medical system to another – known as the referral system – and in which progress is made from the client to the patient. Although not all patients take the same subsequent steps through the referral system, some utilise more than one medical system simultaneously, known as 'healer shopping'. Some early studies underscore that it has become evident that this health care utilisation process is influenced by several categories of background and intervening factors, in which psycho-social and cultural factors are playing a dominant role. The consideration of these factors for improved health care are specifically important in nursing, where direct contact and communication are operational between the nurses and the clients or patients with CVD in the community.

In Indonesia, generally, if community members discover symptoms of illness, they will firstly try to find a solution through 'self-treatment', which is then communicated with members of the nuclear family. If the symptoms do not disappear, they will be communicated with the members of the extended family or with neighbours. If the symptoms still have not disappeared, the patient will proceed to seek professional help, often from a *dukun* ('traditional healer') representing the traditional medical system. Often, the last resort is sought from experts of the available transitional or modern medical system.

Moreover, in Sumedang, as one of the Regencies in West-Java, the local population still adheres to the local customs and beliefs in the community, especially the elderly. Likewise, the illness behaviour shown by the elderly community members with CVD shows the use of the different nursing institutions and organisations in the region for the treatment of their illness. Various nursing institutions and organisations in Sumedang can be found in the area, where traditional nursing of the elderly is practiced by *orang pintar* ('traditional healer'), *ajengan* ('shaman'), and *paraji* ('TBA') (*cf.* Ambaretnani 2012). In general, patients seek to overcome their illnesses or disease by using home remedies derived from MAC plants from *Tanaman Obat Keluarga*-TOGA ('Family Medical Home Gardens') (*cf.* Slikkerveer & Slikkerveer 1995). These *jamu* can be consumed directly as *lalab* ('salad'), or processed, blended or boiled into herbal drinks, or ground to be applied as an ointment on specific body parts. In addition, there are also traditional techniques such as *pijat* and *urut* ('massage'), often accompanied by *jampi* ('prayers'), and specific readings, usually conducted by the *dukun* ('traditional healers'). Such mostly non-profit practices of traditional knowledge and beliefs in nursing are defined as the basis for the indigenous nursing institutions. Other available nursing organisations are represented by the *Warung Obat* ('Drug Store') which are providing a mix of herbal medicines and pharmaceutical medicines packaged in sachets as manufactures, and sold over the counter without a doctor's prescription. These profit-making organisations in the research area are defined as Transitional Nursing Organisations (TNO).

In addition, there are several facilities of modern nursing organisations available to the community which can be obtained from the government *Pusat Kesehatan Masyarakat* (*Puskesmas)* ('Community Health Centers'), and similar private nursing clinics which are managed by professional health workers. These modern nursing facilities are defined as the modern nursing organisations (MNO) in Sumedang. Several categories of factors among the community members influence their choice and utilisation of the available nursing institutions or organisations for the treatment of their health problems or illnesses. Important factors such as values, norms, and beliefs, as well as previous experience with medical care, tend to determine the utilisation of the nursing institutions or organisations. In addition, other factors, such as availability of resources, ease of access, geographical location, and the costs incurred for treatment still influence the utilisation behaviour by the patients of a specific nursing institution or organisation.

As is the case among most elderly people with CVD in Sumedang, they seem to prefer utilising indigenous nursing practices among the elderly, which in their view are more in line with the local traditions and culture, their norms, values, and expectations, to fulfil their expectations and satisfaction. Their use of indigenous knowledge, beliefs and practices is a means of maintaining their traditions and customs, expressing their devotion to their ancestors. As regards the local culture of Sumedang, people do not only have different views on health, disease and treatment, but also different opinions on the expertise of health workers, including *dukun*, doctors, nurses, midwives and the quality of available health facilities. The diversity in habits and expectations on health, disease and treatment among the members of the different sub-cultures in Indonesia, expressed in their health and illness behaviour, requires a nursing system which is culturally competent and responsive to the different needs and expectations of each patient, in particular the elderly with CVD.

There is, however, a lack of applied-oriented research on the extent of the utilisation of the different nursing institutions and organisations in the community, especially by the elderly with CVD. Providing culturally appropriate nursing for specific population groups is an effective way to improve the utilisation of available institutions and organisations. It can also increase the trust and knowledge of nurses, providing them with the skills and education necessary to provide special care to specific groups of patients including the elderly, taking into account their local language, traditions, culture, and/or ethnicity (*cf*. Jovanovic 2012). In particular, applied research on culturally competent nursing institutions and organisations, especially in the nursing of the elderly with CVD in Sumedang, requires research which focusses on the patient's point of view. In addition, nurses need to learn from those patients who benefit most directly from the use of nursing practices in order to enhance the cultural competence of nurses. Although several studies analyse cultural competence in nursing, yet no studies are focussing on the role and influence of several categories of selected factors on the utilisation by the elderly with CVD of the different co-existing traditional, transitional and modern nursing institutions and organisations in Sumedang. It is clear that in order to realise such objectives, there is a need for community-based ethno-medical research which observes, describes, collects, analyses and explains relevant data, including in-depth information on the role of indigenous medical knowledge in relation to the utilisation of nursing of the elderly with CVD in Sumedang.

This ethnomedical community-based study also builds on the strengths of previous research conducted by Slikkerveer (1995) in the Horn of Africa. His approach was later used successfully by Agung (2005); Ibui (2007); Leurs (2010); Djen Amar (2010; Ambaretnani (2012); Aiglsperger (2014);Erwina (2019); Chirangi (2013) and De Bekker (2020) and Febriyanti (2021), all focusing on the utilisation of various knowledge systems by the local population. The implications of this kind of ethnomedical research also contribute to the development of transcultural nursing, analysing the differences and similarities among clients and patients of different sub-cultures regarding their health and illness behaviour, as expressed in their utilisation of nursing institutions and organisations based on human cultural values, beliefs and actions (*cf* Leininger 2002). The results of this study in Sumedang seek in particular to contribute to the development of transcultural nursing of the elderly with CVD, in order to provide improved health and well-being of clients and patients with different ethnic and cultural backgrounds at the community level, as such ensuring that all cultural groups have equal access to integrated health services.

1.4 Aim, Objectives and Structure of the Study

1.4.1 General Aim

This study aims to document, study and analyse the relevant determinants of the patterns of utilisation by the elderly with CVD of the plural nursing system in Sumedang, West-Java, with a particular focus on the role of indigenous medical knowledge, beliefs and practices, known as *kearifan kesehatan local* (´traditional medical knowledge') in the choice of nursing institutions or organisations, with a view to contribute to the development of transcultural nursing in West-Java and elsewhere in Indonesia.

1.4.2 Specific Objectives

In order to operationalise the above-mentioned general aim, a number of specific objectives have been formulated as follows:

Firstly, to briefly describe Sumedang as a rich cultural center of West-Java in Indonesia;

Secondly, to describe the daily life of people in the selected four rural communities as research locations in Sumedang of West-Java;

Thirdly, to describe the prevalence of reported CVD among the elderly in the research area;

Fourthly, to describe the plural nursing system, encompassing the traditional, transitional and modern nursing institutions and organisations in Sumedang in West-Java,

Fifthly, to document and analyse the reported utilisation patterns by the elderly with CVD of the plural nursing system in the research area;

Sixthly, to present and explain the results of the stepwise analysis of the reported utilisation patterns of the plural nursing system by the elderly with CVD in the research area; and finally,

Seventhly, to formulate policy recommendations for the integration of the nursing institutions and organisations as a contribution to the development of transcultural nursing in Indonesia.

1.4.3 Structure and Organisation of the Study

In order to realise the general aim and specific objectives, the structure of this research has been divided into nine chapters as follows:

Chapter I describes the development of community nursing in Indonesia, including the development of nursing and community empowerment through rural health care development, and the trends in the development of nursing institutions and organisations. In addition, this chapter discusses the challenge of nursing in cultural diversity, the importance of transcultural nursing, and the epidemiological transition in Indonesia. In addition, the need for the study of culture-specific nursing is underscored by the use of the plural medical system.

The Chapter also describes *kearifan kesehatan local* ('indigenous medical knowledge'), and the complementarity between nursing systems and medical systems. It concludes with underscoring the significance of nursing utilisation research with regard to the elderly with CVD for the development of transcultural nursing in Indonesia.

Chapter II discusses the theoretical orientation of this study by explaining the selection of appropriate ethnomedical concepts, working definitions and processes of the research components, including plural medical systems and plural nursing systems, Indigenous Knowledge Systems (IKS), the concept of transcultural nursing, and the conceptualisation of nursing of the elderly with CVD. Special attention is given to the utilisation of the plural nursing system, encompassing indigenous nursing institutions, and transitional and modern nursing organisations,

Chapter III defines the appropriate research methodology and analytical methods, both qualitative and quantitative based on the *'Leiden Ethnosystems Approach'* and the model of nursing behaviour,

Chapter IV provides comprehensive information about the research area of the Sumedang Regency as part of the Tatar Sunda Region of West-Java, Indonesia, as a country with a rich cultural diversity.

Chapter V focuses on the description of people's lives in Sumedang, especially in the four villages where the research is located, including the characteristics of the sample population and the plural medical system available in the region.

Chapter VI describes nursing of the elderly with CVD and the plural nursing system in Indonesia, encompassing traditional nursing institutions, transitional nursing organisations, and modern nursing organisations.

Chapter VII describes the traditional nursing institutions in the Sundanese community including cosmology, life views, and culture about health and healing through *ubar kampung*.

Chapter VIII presents the results of the quantitative analysis and the interpretation of the utilisation patterns of the plural nursing system as reported by the participants in the research area using the bivariate, mutual relations, multivariate, and multiple regression analysis. And finally,

Chapter IX presents the theoretical, methodological and practical conclusions and recommendations based on the results of the study in Sumedang, West-Java, Indonesia.

Notes

1. Non-Communicable Diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors. The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

2. The term 'emerging disease' has been in use in scientific publications since the beginning of the 1960s and is used in the modern sense by David Sencer (1971) in his article '*Emerging Diseases of Man and Animals'* where in the first sentence of the introduction he implicitly defines emerging diseases as: *'infectious diseases of man and animals currently emerging as public health problems'* and as a consequence also includes re-emerging disease.