Self-care practices for common acute conditions in the Philippines: a scoping review

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Abstract

Purpose – This review aimed to identify and map published studies on self-care practices to manage common acute health conditions in the Philippines.

Design/methodology/approach – The authors conducted a scoping review in PubMed, Scopus, Cumulative Index of Nursing and Allied Health Literature (CINAHL), ProQuest Central, Journal Storage (JSTOR) and the Philippine Council for Health Research and Development – Health Research and Development Information Network (HERDIN). The authors included all studies on self-care practices to manage common acute conditions, namely low back pain, allergic rhinitis, general acute pain, cough, cold, diarrhea, constipation and stress, published up to 2021 in the Philippines. Information on the article type, aim of the study, study design

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Ethics approval: This study received ethics approval from the University Research Ethics Office of Ateneo de Manila University (Study No. SMPH SELFCARE2022). This review is part of a larger study that reviewed local studies and policies on self-care and assessed the social value and economic impact of self-care. While this paper presents the findings of the scoping review, the authors' search strategy was partly informed by self-care terms used by the participants in the interviews and/or focus group discussions. All participants were informed about the aims and objectives of the study. Prior the interview and/or focus group discussion, the research team thoroughly explained the study to the participants and provided the participants the opportunity to ask questions the participants may have. Written digital consent was taken from study participants before the interview.

Data availability statement: All data relevant to the study are included in the article.

Contributors: AML: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Validation, Writing – original draft, Writing – review & editing

VCFP: Conceptualization, Data curation, Formal analysis, Investigation, Project administration, Validation, Writing – original draft, Writing – review & editing

MMD: Conceptualization, Investigation, Project administration, Resources, Supervision, Writing – review and editing

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and setting, population characteristics and size, and self-practices employed for the conditions were extracted and synthesized.

Findings – The authors identified various self-care practices for acute conditions among the general population and indigenous peoples in the Philippines from 26 studies included in the review: the use of medicines with and without a prescription, appropriate and inappropriate antibiotic use, use of medicinal plants and other traditional and alternative therapies and products, recreational activities and healthy habits and behaviors, and self-management or seeking care from traditional healers (*albularyo* or *manggagamot*) or health professionals. A number of considerations influenced their decision on how to manage symptoms, including perceived severity of the condition, availability and perceived effectiveness of treatment, cost, and advice from trusted sources of health information.

Research limitations/implications – The authors searched five major databases and a local research database, but some studies may still have been missed in the review. The review also excluded intervention studies on the outcomes of self-care, which limits the authors' ability to make conclusions on the effectiveness of the different modalities of self-care.

Social implications – Filipinos engage in a variety of "safe" (or evidence-informed) and "unsafe" (or harmful) self-care practices. While the term "self-care" is not routinely used by the general population and health providers, it is widely enculturated and practiced in the Philippines. Self-care benefits individuals and the health system, but there are also practices that increase risk of adverse outcomes and death including inappropriate antibiotic use, prescription sharing and reuse, and delays in seeking adequate treatment from a health professional. To leverage on self-care in advancing Universal Health Coverage (UHC) goals, the authors recommend a national strategy that provides guidance on how to practice responsible self-care, further research on the effectiveness and safety of alternative medicine and other priority areas, and better integration of self-care in the formal education and health systems. The authors also propose that the research agenda on self-care include acute health conditions, given their impact and burden on health and the economy.

Originality/value – This is the first published review of self-care practices for managing common acute health conditions, which captured practices of various groups and populations including indigenous peoples.

Keywords Complementary medicine, Primary care, Public health, Scoping review, Philippines, Universal health coverage

Paper type Literature review

Introduction

Self-care encompasses health promotion, disease prevention and control, self-medication and self-management, seeking care from the formal health system and rehabilitation (World Health Organization, 2019). It has the potential to increase cost savings by USD 119bn, save time spent by patients and physicians, and improve quality of life (Bauer *et al.*, 2022; Global Self-Care Federation, 2021). Its value for countries and health systems is in contributing to improved health outcomes while reducing unnecessary demands on the formal health system, and is recognized as a cost-effective strategy that is integral to Universal Health Coverage (UHC) (Amit *et al.*, 2022; Lozano *et al.*, 2020). This is especially necessary for health conditions commonly experienced such as low back pain, allergic rhinitis, general acute pain, cough, common colds, diarrhea, constipation, and stress. These contribute substantially to the burden of disease and loss of economic productivity (Department of Health, 2022; Dierick *et al.*, 2020; Katelaris *et al.*, 2011; Sanico, 2004), but can be managed by patients on their own with proper guidance. However given the low health literacy of the general population in the Philippines (Tolabing *et al.*, 2022) and increasing global health threat of antimicrobial resistance (AMR) attributed to improper self-medication (Rather *et al.*, 2017), a more systematic approach to empower people in caring for oneself is a key approach which needs to be implemented as early as childhood.

The increasing importance of self-care comes with the need to establish its evidence base concerning its safety and effectiveness (Jaarsma *et al.*, 2020; Riegel *et al.*, 2021). Methodological suggestions have been published to strengthen research on self-care (Jaarsma *et al.*, 2020). Additionally, a research agenda for self-care has been proposed that identifies the following as priority areas: influence of habit formation on self-care behavior change; resilience in the face of stressful life events and social contexts that interfere with self-care; culture and self-care;

difficulty performing self-care with multiple chronic conditions; self-care in persons with severe mental illness; and the influence of others on self-care (Riegel *et al.*, 2021). Previous reviews have largely focused on self-care for chronic diseases and/or self-care in high-income settings (Hearn *et al.*, 2019; O'Connell *et al.*, 2018; Papadakos *et al.*, 2018).

This scoping review aimed to map the literature of how Filipinos practice self-care to manage common acute conditions to answer the research question, "What examples of self-care practices for common acute conditions among Filipinos exist in the published local literature?" In doing so, we provide evidence on self-care practice and research for acute conditions in low- and middle-income countries (LMICs) using the Philippines as an example, where the implementation of the UHC has been impacted by the coronavirus disease 2019 (COVID-19) pandemic (Amit *et al.*, 2022; Jaminola *et al.*, 2022). This review will provide insights into the current evidence base: the culture and understanding of self-care, and specific self-care practices in managing acute health conditions in a low-resource setting.

Methods

Study design

We conducted a scoping review to identify and map studies which discussed self-care practices in the Philippines. A scoping review was conducted, instead of other evidence synthesis designs, because we aimed to scope the literature on self-care practices in the Philippines as a means to clarify how self-care is viewed and defined in the Philippines (Munn *et al.*, 2018). This review followed the Joanna Briggs Methodology (Antonio *et al.*, 2021; Peters *et al.*, 2020) and reported findings according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist (Tricco *et al.*, 2018).

Search sources and terms

We conducted a scoping review in PubMed, Scopus, Cumulative Index of Nursing and Allied Health Literature (CINAHL), ProQuest Central, Journal Storage (JSTOR), and Philippine Council for Health Research and Development – Health Research and Development Information Network (HERDIN) from November 2021 to January 2022. Three sets of search terms based on the following key themes were used: self-care practices, health and Philippines. The terms and themes relevant to self-care were guided by the World Health Organization (WHO) definition (World Health Organization, 2019). These were further informed by an initial search of the literature in PubMed and previous similar reviews, interviews and focus group discussions with key stakeholders including patients, health providers, representatives from the pharmaceutical industry and policymakers. We applied Boolean operators to combine the search terms: self-care practices corresponding to our review's concept (self-care, self-medication, OTC for over-the-counter medications, OTC switch, nonprescription drugs, self-efficacy, self-management, prescription sharing, complementary therapies, traditional medicine, complementary and alternative medicine, herbal medicine), health and specific health conditions for context (health, minor ailment, acute condition, low back pain, allergic rhinitis, acute pain, cough, cold, diarrhea, constipation, stress) and the general population and any subpopulations in the Philippines as our population (Philippines). For JSTOR, we restricted our search to the following subject areas: health policy, health sciences, political science, population studies, public health, public policy and administration. HERDIN is a local database and therefore, we did not include country restrictions in our search. The full details of the search strategy are available from Supplementary File Table S1

Study eligibility criteria

We included English peer-reviewed full-text articles that focused on self-care practices of the general population to manage the following acute conditions: low back pain, allergic rhinitis,

general acute pain, cough, cold, diarrhea, constipation, and stress. Studies with infants and children as the study population were included, focusing on how their parents and caregivers managed their symptoms. Studies that focused on the effect of an intervention, where only a self-care intervention and its impact on health outcomes was described, were excluded since the focus of this review is on describing self-care practices of Filipinos. Phytochemistry papers that focused on the chemical nature and properties of plants and studies on self-care practices for chronic conditions were also excluded given that the scope of the review is restricted to various self-care interventions used for common self-limiting or acute conditions. Conference abstracts, commentaries, editorials, letters, correspondences, perspectives, theses, dissertations, and news and media articles were also excluded. We included all peer-reviewed papers published up to 2021.

Study retrieval and selection

Articles were retrieved in EndNote Extensible Markup Language (XML) format, the PubMed format, or the Research Information Systems (RIS) text format. All retrieved studies were first imported to EndNote (Clarivate Analytics, Philadelphia, Pennsylvania, USA) to remove duplicates. Full-text articles from HERDIN were retrieved with the assistance of an information specialist. These were then imported to Covidence, a web-based platform that facilitates reviews. Any remaining duplicate studies were removed using the software. Articles were screened in two stages: at the title and abstract level and then at the full-text level. Disagreement between reviewers (AML and VCFP) was resolved through consensus or through an arbiter (MMD).

Critical appraisal of individual sources of evidence

Risk of bias appraisal was not performed as this was not the objective of this scoping review.

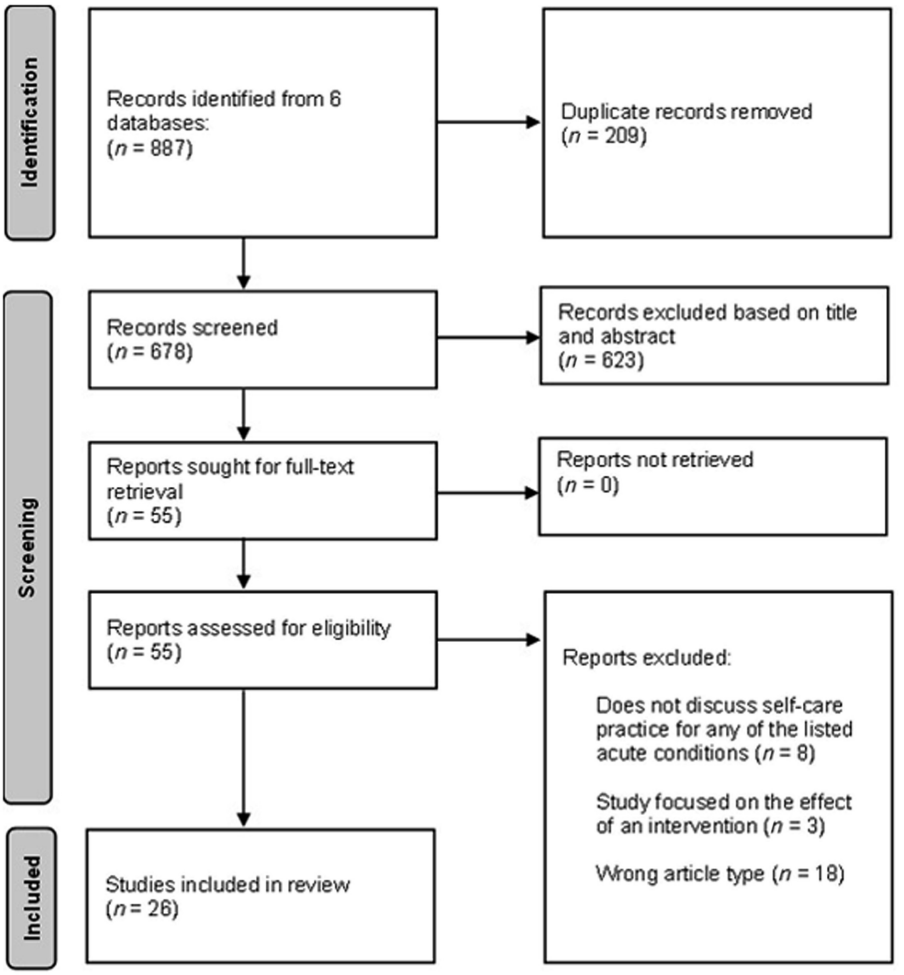
Data extraction and synthesis

The following data fields were extracted from the included studies in Covidence: article type, aim of the study, study design and setting, population characteristics and size, and self-practices employed for the conditions. A narrative approach was used to synthesize data focusing on the self-care strategies employed. The review also explored popular health culture and beliefs, influences and social support, and resolution of illness and perceived effectiveness of self-care interventions. The data from the included studies were thematically analyzed to come up with the categories of the different interventions: use of medicines with and without a prescription, medicinal plants and other traditional and alternative therapies and products, recreational activities, and self-management or seeking care from traditional healers (*albularyo* or *manggagamot*) or health professionals. This classification of self-care interventions deviates from the WHO, which places emphasis on drugs, devices, diagnostics and digital products. Our review only captured drugs given the focus on acute conditions, which are typically self-limiting without the need for devices, diagnostics and other digital products.

Results

The search resulted in a total of 887 studies, with 209 duplicates removed. After screening, 623 were not relevant as these did not meet the criteria for inclusion based on their titles and abstracts and only 55 studies were eligible for full-text screening. A total of 55 full-text articles were retrieved and screened, of which 26 articles met the criteria for review (Figure 1).

The 26 included articles were published between 1987 and 2021, and employed mixed-methods ($n = 5$), quantitative ($n = 11$) and qualitative ($n = 9$) research designs and evidence



Source(s): Authors adapted from Page *et al.* (2021)

Figure 1.
PRISMA flow diagram

synthesis ($n = 1$) (Balangcod and Balangcod, 2011; Balilla *et al.*, 2014; Barber *et al.*, 2017; Bernardo and Tolentino, 2019; Caringal-Go *et al.*, 2021; Cleofas, 2021; Cordero and Alejandro, 2021; Cruz *et al.*, 2011; Del Mundo *et al.*, 2019; Hardon, 1987; Katelaris *et al.*, 2011; Kim *et al.*, 2014; Maglalang-Co *et al.*, 1999; Marquez *et al.*, 2020; McNee *et al.*, 1995; Morfe and Lim, 2013; Nichter and Nichter, 1993; Obermeyer *et al.*, 2004; Ong and Kim, 2014; Sato *et al.*, 2018; Simon *et al.*, 1996; Tupasi *et al.*, 1989; Villanueva, 2021; Visaya-Ceniza, 2015; Yoder and Hornik, 1994; Zarsuelo *et al.*, 2018). We were able to identify studies conducted in all island groups of the country (Luzon: 12 studies; Visayas: 8 studies; Mindanao: 1 study; and 3 nationwide studies). Study populations represented various groups: Filipinos with ages ranging from 15 years of age and above and parents/caretakers of infants and children under 18 months and above, both male and female and from the general population and indigenous groups (Aeta, Kalangua, Ati, Ga'dang) (Table 1). Our review included nine studies with infants and children with pneumonia-like episodes, diarrhea, acute respiratory illness, and allergic rhinitis as the

	Years searched: Up to 2021
Years	Publication year of included studies: 1987–2021
Methods	Mixed methods: 5 studies Quantitative: 11 studies Qualitative: 9 studies Review: 1 study
Setting	Luzon: 12 studies Visayas: 8 studies Mindanao: 1 study Nationwide: 3 studies Not specified: 1 study Review: 1 study
Population	Filipinos ages 15 and above, and parents/caretakers of infants and children under 18 months and above; both males and females; the general population and indigenous groups (*Kalanguya*, *Aeta Magbuku'n*, Negritos or locally referred to as *Ati*, *Ati Negrito*, *Ga'dang*)
Self-care practices	Medicines with and without a prescription, appropriate and inappropriate antibiotic use, traditional and alternative medicine (e.g. oils, therapy, supplements), recreational activities and healthy habits and behaviors, and seeking care from traditional healers and health professionals

Source(s): Authors' work

Table 1. Summary of local studies on self-care published from 1987–2021

population of interest, and how their parents and caregivers managed their symptoms (Hardon, 1987; Katelaris *et al.*, 2011; Kim *et al.*, 2014; McNee *et al.*, 1995; Nichter and Nichter, 1993; Sato *et al.*, 2018; Simon *et al.*, 1996; Tupasi *et al.*, 1989; Yoder and Hornik, 1994). A more detailed summary of the included articles is shown in Supplementary File Table S2.

Summary of self-care practices

Based on the literature reviewed, medicines with and without a prescription, traditional and complementary medicine (T&CM) including the use of medicinal plants, oils and food supplements, recreational activities and health behaviors and seeking care from both traditional healers (*albularyo or manggagamot)* and the formal health system, have been used and practiced to manage common acute conditions (Balangcod and Balangcod, 2011; Balilla *et al.*, 2014; Barber *et al.*, 2017; Bernardo and Tolentino, 2019; Caringal-Go *et al.*, 2021; Cleofas, 2021; Cordero and Alejandro, 2021; Cruz *et al.*, 2011; Del Mundo *et al.*, 2019; Hardon, 1987; Katelaris *et al.*, 2011; Kim *et al.*, 2014; Maglalang-Co *et al.*, 1999; Marquez *et al.*, 2020; McNee *et al.*, 1995; Morfe and Lim, 2013; Nichter and Nichter, 1993; Obermeyer *et al.*, 2004; Ong and Kim, 2014; Sato *et al.*, 2018; Simon *et al.*, 1996; Tupasi *et al.*, 1989; Villanueva, 2021; Visaya-Ceniza, 2015; Yoder and Hornik, 1994; Zarsuelo *et al.*, 2018). We also found that "self-care" as a term and concept is more commonly referred to using its synonyms including self-medication and traditional and complementary medicine. Earlier studies delineated when conditions would be managed at home vis-à-vis seeking care from the formal health system. Only one study used the term "self-care" *per se* (Cleofas, 2021).

Western medicines with and without a prescription

A total of 13 studies reported the use of Western (or conventional) medicines to manage acute health conditions and symptoms such as the common cough and cold, body aches, allergic rhinitis, and those of the digestive tract (Barber *et al.*, 2017; Bernardo and Tolentino, 2019; Hardon, 1987; Katelaris *et al.*, 2011; Kim *et al.*, 2014; Maglalang-Co *et al.*, 1999; McNee *et al.*, 1995; Nichter and Nichter, 1993; Obermeyer *et al.*, 2004; Sato *et al.*, 2018; Simon *et al.*, 1996; Tupasi *et al.*, 1989; Yoder and Hornik, 1994). Over-the-counter medicines and antibiotics were

used by participants in the studies throughout the country belonging to different age groups from 15 years and above, and by parents and caregivers with infants and children. For pneumonia symptoms including cough in particular, Filipinos bought medications without a prescription – choosing a brand previously prescribed by a doctor, or suggested by a pharmacist or pharmacy attendant (Kim *et al.*, 2014; Simon *et al.*, 1996). Prescription sharing was reported by fathers of children with pneumonia-like episodes and symptoms (e.g. cough): "I asked my mother-in-law for medicine since she had a stock of medicines from the congressman" (Sato *et al.*, 2018). There was also mention of other harmful practices including a trial-and-error method for choosing medications, based on the advice of relatives or health workers or advertisements (Tupasi *et al.*, 1989). In addition to influencing how symptoms are managed, social networks also provided financial support from whom money for hospital and health expenses could be borrowed (Sato *et al.*, 2018). None of the studies described the use of medicines to relieve stress.

Traditional and complementary medicine (T&CM)

Traditional and complementary medicine (T&CM), also referred to as non-conventional medicine, is a group of diverse health practices and approaches that incorporate plant, animal, mineral base medicine, and spiritual therapies and exercises (World Health Organization, 2002). This review found 16 studies reporting the use of T&CM among the general population to manage acute health conditions except allergic rhinitis and stress (Balangcod and Balangcod, 2011; Balilla *et al.*, 2014; Cordero and Alejandro, 2021; Cruz *et al.*, 2011; Maglalang-Co *et al.*, 1999; Marquez *et al.*, 2020; McNee *et al.*, 1995; Morfe and Lim, 2013; Nichter and Nichter, 1993; Ong and Kim, 2014; Sato *et al.*, 2018; Simon *et al.*, 1996; Tupasi *et al.*, 1989; Villanueva, 2021; Yoder and Hornik, 1994; Zarsuelo *et al.*, 2018).

Even in the more urban areas including the National Capital Region, which is the most urbanized region in the country, T&CM was used for various conditions such as general and musculoskeletal pains, gastric problems, respiratory problems including cough. The practice of T&CM is prevalent with as much as 8 in 10 Filipinos using any T&CM (Morfe and Lim, 2013). Herbal medicines including Lagundi, Oregano and Sambong, among many others, were used for various ailments. Preparations included boiling of leaves, crushing or stemming of leaves, and squeezing out the juice and adding lemon to make a concoction. For musculoskeletal problems, oils, liniments, balms, manipulative therapy were applied (Morfe and Lim, 2013). The use of food supplements, or products containing substances such as vitamins and minerals, was also reported for general health concerns and symptoms for both chronic and acute conditions such as cough (Cruz *et al.*, 2011). The supplements identified included combined nutrient supplements or multivitamins and minerals, single nutrient supplements, herbal supplements, herbal tea, and other supplements such as yeast, lecithin and oils (fish, virgin coconut and garlic) (Cruz *et al.*, 2011). Apart from symptoms of acute respiratory illnesses and musculoskeletal problems, body pains due to stress and tension were managed by using coconut oil set on fire (Villanueva, 2021). T&CM was not mentioned for allergic rhinitis.

Indigenous practices

While certain indigenous practices are also considered traditional and alternative medicine, for the purpose of this review, we separated practices by indigenous peoples to highlight any similarities and differences between this population group and the general population. We found five studies focused on practices of indigenous groups including the *Kalanguya* in Ifugao, the *Aeta Magbukún* in Bataan, the Negritos or locally referred to as *Ati* in Antique, the *Ati Negrito* in Guimaras, and the *Ga'dang* in Nueva Vizcaya (Balangcod and Balangcod, 2011; Balilla *et al.*, 2014; Cordero and Alejandro, 2021; Ong and Kim, 2014; Villanueva, 2021).

Among indigenous peoples, the use of medicinal plants was common and rooted in ethnobotanical knowledge and their culture. As many as 125 plant species were reported to be used by the *Kalanguya* for common ailments including those of interest in the review and are perceived effective (Balangcod and Balangcod, 2011). Medicinal plants were used to treat two or more health conditions such as *hapal* (*Drimys piperata*) for stomachache and cough (Balangcod and Balangcod, 2011). Similar to the general population, there were various modes of preparation of these plants including crushing, boiling and decoction of the parts of the plant most especially the leaves (Balangcod and Balangcod, 2011). The *Aeta Magbukún* also used traditional remedies (Balilla *et al.*, 2014). However, because of the establishment of a community pharmacy, the *Aeta Magbukún* reported use of Western medicines such as pain relievers (Balilla *et al.*, 2014). Among the *Ati Negritos*, more than 100 plant species were identified for management of various conditions including cough, diarrhea, and other pulmonary problems (Cordero and Alejandro, 2021; Ong and Kim, 2014). Similar methods of preparation were used and at times, leaf extracts were mixed with sugar or breastmilk to improve taste for infants and children (Cordero and Alejandro, 2021). Apart from herbal medicines, coconut oil considered essential in healing rituals was used by *Ga'dang* peoples for treatment of headache, gastric problems, and even other pains experienced and caused by stress and tension (Villanueva, 2021). Similar to the general population, families and social networks were important sources of health information that influenced their decision to seek an indigenous healer and their preferences for treatment modalities. The main difference between T&CM practiced by the general population and indigenous peoples is that traditional medicine is closely tied with their belief that spirits cause illnesses. And therefore, ceremonies and rituals were performed by traditional healers in addition to the use of medicinal plants and oils and these healers were primarily sought before going for treatment in a health facility.

Recreational activities and healthy habits and behaviors

Filipinos engaged in recreational activities, and adopted healthy habits and behaviors to maintain mental well-being and manage stress (Caringal-Go *et al.*, 2021; Cleofas, 2021; Del Mundo *et al.*, 2019; Villanueva, 2021; Visaya-Ceniza, 2015). These included taking quick breaks, exercising, hiking and mountain climbing, dancing, meeting with friends, spending time outdoors, praying, joining religious groups, watching soap operas (locally known as *teleseryes*), and participating in other social activities with friends and families such as singing in a karaoke or playing bingo (Caringal-Go *et al.*, 2021; Cleofas, 2021; Del Mundo *et al.*, 2019; Villanueva, 2021; Visaya-Ceniza, 2015). There was a similarity in the way Filipinos managed stress and chronic conditions, with a greater emphasis on maintenance of health: having a healthy diet and engaging in exercise for both physical and mental health (Caringal-Go *et al.*, 2021; Cleofas, 2021; Del Mundo *et al.*, 2019; Villanueva, 2021; Visaya-Ceniza, 2015). No recreational activities were mentioned in any of the other acute conditions of interest in this review.

Self-management vs. seeking care from traditional healers or health professionals

An important aspect of self-care is seeking primary, hospital and specialist care if necessary (World Health Organization, 2019). Our review revealed that perceptions about the ethnophysiology and severity of the illness, treatment effectiveness, source and availability of treatment and cost and advice from trusted sources of health information, influenced the decision to manage the symptoms at home vis-à-vis seeking care from a traditional health or a health provider. This was evident in earlier studies that explored treatment choices according to these considerations (Hardon, 1987; Maglalang-Co *et al.*, 1999; McNee *et al.*, 1995; Nichter and Nichter, 1993; Simon *et al.*, 1996; Tupasi *et al.*, 1989; Yoder and

Hornik, 1994). For example, diarrhea perceived to be severe was treated based on a doctor's advice while those perceived to be mild were self-managed with no medication or with pharmaceuticals (Hardon, 1987). Among children with cough in Bohol in the southern Visayan Islands of the country, their caretakers would define the illness category such as cough due to '*piang*' (sprain) and '*ubo nga natural*' (natural cough) as necessitating treatment at home and by a traditional healer, respectively. Such practices, where patients first manage their symptoms or seek the help of traditional healers (*albularyo* or *manghihilot*) before seeing a health professional especially for severe conditions, contribute to delays in getting timely, effective and quality care that may increase risk for adverse outcomes and death (McNee *et al.*, 1995). Symptoms and the nature of the illness also determined the choice of treatment. For acute respiratory illnesses, difficulty in breathing and even the color of mucus (i.e. clear vs. yellow) would dictate the type of treatment (i.e. no medication, self-medication, or treatment by a health professional) and source of treatment (i.e. self or caretaker for children, traditional healer, or health professional in a health facility). Confidence in treating these conditions also relied on how life-threatening they were perceived, with diarrhea perceived as more serious than cough (Tupasi *et al.*, 1989).

Discussion

This scoping review provides insights into the current research landscape, understanding of self-care, and how self-care is practiced in managing acute health conditions. We found that Filipinos across different population groups and settings engaged in a variety of self-care practices – some of which can be potentially harmful: use of medicines with and without a prescription and antibiotics even for the common cough and cold, and delays in seeking adequate treatment from a health professional. Filipinos also engaged in recreational activities and adopted healthy habits and behaviors, which are recommended for the prevention of noncommunicable diseases. Additionally, they managed their own condition or sought care from a traditional healer or a health professional, influenced by various considerations. Specific to indigenous peoples, ceremonies and rituals are performed with traditional therapies because of passed on beliefs on the causes of sickness and disease.

This review is aligned with the proposed research areas on self-care (Riegel *et al.*, 2021) and described how self-care is practiced among the general population and indigenous peoples. Studies on indigenous peoples showed that culture and knowledge play a role in how diseases and self-care are viewed, which are important in better understanding and promoting self-care (Riegel *et al.*, 2021). Additionally, in managing stress, it showed Filipinos' resilience and how engaging in recreational activities helped. The role of social networks was also prominent across population groups and conditions, which highlights the need to involve them in promoting desired health behaviors and decision-making processes. More importantly, our review also shows the need to study self-care beyond chronic conditions as self-care practices for acute conditions are just as varied and have significant implications on AMR, T&CM, health, education and labor policy and economy. There may be a need, therefore, to include self-care for managing acute conditions in the research agenda since only chronic illnesses are spotlighted (Riegel *et al.*, 2021).

Despite our finding that self-care practices are well-enculturated in the Philippines, some self-care practices have been described as harmful. In the Philippines, the lifetime prevalence of sharing antimicrobials is estimated to be 78% (Barber *et al.*, 2017), contributing to AMR in the country. Inappropriate antibiotic use and prescription sharing have been reported even for the common cold or cough (Barber *et al.*, 2017; Sato *et al.*, 2018), and may be reflective of misconceptions that antibiotics are useful against all types of common cold and cough and can even be considered as vitamins (Barber *et al.*, 2017). Furthermore, beliefs and practices about the ethnophysiology of diseases that are deeply rooted in tradition and culture have

been demonstrated to cause delays in the decision to seek medical attention, sometimes with fatal consequences especially among children. Given that 1 in 2 Filipinos have limited health literacy (Tolabing *et al.*, 2022), we need more information campaigns and inclusion of health literacy in the basic education curricula. Health professionals, together with community health workers, will need to actively engage with patients to emphasize responsible self-care and responsible use of medications (Amit *et al.*, 2022; Robredo *et al.*, 2022). On the other hand, our review also showed that Filipinos sought healthcare from the formal health system, instead of self-management at home or by a traditional healer, and engaged in prescription sharing or reuse based on several factors including the advice of their social networks. Seeking timely and appropriate care is a key component of self-care that needs to also be taught, given that significant delays can worsen the health status and increase risk of death (McNee *et al.*, 1995). Equally important therefore is to empower individuals to evaluate information and make informed and timely health decisions, acknowledging their various considerations such as perceived severity of the condition, availability and perceived effectiveness of treatment, cost and advice from trusted sources of health information.

Indigenous peoples mainly used herbal and ethnomedicinal plants. However, one study reported use of Western medicines because of the establishment of a community pharmacy (Balilla *et al.*, 2014). Traditional and ethnomedical knowledge in indigenous communities may be lost as a result of relocation to cities and shifting into Western medical practices (Dapar and Alejandro, 2020). Conversely, Western medicines are predominantly used but T&CM is still practiced by the general population and even among Filipinos in more urban areas. Despite the lack of strong evidence of T&CM effectiveness and safety, as well as potential interactions that may occur with their concurrent use with conventional medicines, Filipinos continue to engage in this practice (Othman and Farooqui, 2015; Peltzer and Pengpid, 2018) with 4 in 5 not informing their doctors (Cruz *et al.*, 2011). As many as 125 plant species have been identified for use in managing acute health conditions (Balangcod and Balangcod, 2011), with only 10 herbal plants endorsed by the Department of Health (Balangcod and Balangcod, 2011; Marquez *et al.*, 2020). Oregano is a popular herbal drug used by the general population and indigenous peoples, but it is not included in the list of herbal plants endorsed in the country (Marquez *et al.*, 2020). House Bill No. 10059 ("An Act Strengthening the Traditional and Complementary Medicine System, Amending for the Purpose Republic Act No. 8423, Otherwise Known As the "Traditional And Alternative Medicine Act of 1997") aims to modify provisions on the regulation and enforcement of T&CM in the country through the Philippine Institute of Traditional and Alternative Health Care (PITAHC) given its prevalent use (House of Representatives, 2021). Despite this legislation, the Philippines still has challenges to better integrate T&CM in the formal health system compared to other countries in the Western Pacific Region such as China, Japan, and the Republic of Korea that already have policies and regulatory systems in place (Park and Canaway, 2019). The lack of effectiveness and safety studies, despite the widespread use of T&CM highlight the need to invest in research that assesses their safety, effectiveness and interactions with other T&CM modalities and Western medications (Palileo-Villanueva *et al.*, 2022). Data on these can be used to inform how T&CM should be integrated into the health system.

Among all the acute conditions studied, only stress was managed through social and recreational activities and other health behaviors including engaging in physical activity and eating a healthy diet. These types of self-care practices are commonly mentioned and more pronounced for chronic illnesses (Newbould *et al.*, 2006; Willis, 2016). Additionally, social support has been a common and more pronounced theme for chronic conditions. For self-limiting conditions and among the general population, relatives, friends, health providers including community health workers influenced management and health decisions (Sato *et al.*, 2018; Tupasi *et al.*, 1989). While fathers considered themselves the main decision-makers, mothers were still identified as the main caregivers (Sato *et al.*, 2018). Among

indigenous peoples, families and social networks were similarly their main sources of health information and influenced the decision to seek an indigenous healer (Villanueva, 2021), with practices passed on from generation to generation. Traditional healers were also important in healthcare decisions as sick individuals or their children would first seek them for healing rituals, given that T&CM among indigenous peoples is tied with the belief that certain conditions are caused by spirits and supernatural beings (Balangcod and Balangcod, 2011; Balilla *et al.*, 2014). In addition to being important facilitators to self-care, families and friends were also depended on for money for hospital and health expenses, brand preferences of medicine and even during prescription and antibiotic sharing (Barber *et al.*, 2017; Sato *et al.*, 2018). We also found that families and peers played an important role in maintaining social and mental well-being (Caringal-Go *et al.*, 2021; Cleofas, 2021). Social networks should therefore be involved when promoting health behaviors and lifestyles to individuals, as they can serve as facilitators or barriers to responsible and evidence-informed self-care.

As self-care becomes recognized to play an integral role in advancing UHC goals, the different self-care dimensions including T&CM, self-medication and other health behaviors need to be better integrated in the health system (Bauer *et al.*, 2022; Global Self-Care Federation, 2021; Park and Canaway, 2019). This means including self-care in health planning and health insurance mechanisms. The current financing model of the country is a case-based payment (Obermann *et al.*, 2018) with the current benefit package called the "*Konsultasyong Sulit at Tama*" ("*Konsulta*") encouraging access to primary care services. Other countries in the Americas and Europe are more advanced in institutionalizing self-care (Bauer *et al.*, 2022), and the Philippines may draw lessons and insights to better regulate self-care practices towards UHC (Amit *et al.*, 2022; Jaminola *et al.*, 2022).

This scoping review is a comprehensive examination of self-care practices to manage common acute health conditions in the Philippines. Our review did not apply any restrictions to the population groups, and we were, therefore, able to capture the different self-care practices of Filipinos including indigenous peoples. Because of the nature of this review however, we did not conduct any quality and risk of bias assessments. To ensure we captured as many local studies as possible, we searched HERDIN, which is the Philippines' country-wide repository of health and health-related research. Our review only included 26 studies that captured different populations and settings including the young and old, female and male, general population and indigenous peoples throughout the Philippines. This low volume of studies may be due to the exclusion of articles that looked into self-care practices for chronic conditions, such that at least 90% excluded at the title and abstract level were studies on chronic illnesses. While we only studied practices to manage commonly experienced acute conditions, studies on self-care and self-management of chronic illnesses reported similar practices including use of medications and practice of healthy behaviors such as regular exercise and good diet (Newbould *et al.*, 2006; Willis, 2016). In addition, some studies may still have been missed, especially those that are not published and registered in the local database. While one study estimated 8 in 10 Filipinos using any T&CM for acute health conditions, this study was published in 2013 but used data in 1999 (Morfe and Lim, 2013). This may therefore be an underestimate or overestimate of current practices based on more updated data (Peltzer and Pengpid, 2018). Finally, our review excluded intervention studies on the outcomes of self-care, which limits our ability to make conclusions on the effectiveness of different modalities of self-care.

Conclusions

This is the first published review of self-care practices for managing common acute health conditions and captured practices of various groups and populations including indigenous peoples. Filipinos engage in a variety of "safe" (or evidence-informed) and "unsafe" (or

harmful) self-care practices including the use of medicines with and without a prescription, appropriate and inappropriate antibiotic use, T&CM, recreational activities and healthy behaviors and self-management or seeking care from a traditional healer or a health professional. Specific to indigenous peoples, ceremonies and rituals are performed with traditional therapies. A number of considerations influenced the decision on how to manage health conditions and symptoms including perceived severity of the condition, availability and perceived effectiveness of treatment, cost and advice from trusted sources of health information.

The prevalent use of T&CM requires investing in research that determines the effectiveness and safety of these modalities and products – their interaction with conventional and Western medicines – together with other priority areas (i.e. self-care and mental health, habit formation). The bill on strengthening the regulation of T&CM is an important step towards a better integration in the health system; but standards for monitoring quality and safety will also need to be established and implemented. Additionally, our review showed that self-care practices are already widely enculturated and accepted among individuals. Health professionals and social networks have an important role to play in encouraging responsible self-care: how and when to do self-care vis-à-vis when to seek a health professional. Further research is also needed on the role of pharmaceutical industries and other commercial determinants of health, self-medication and prescription sharing behaviors, and the effects of habit formation and behavior change as these will inform information, education and communication (IEC) and behavioral change interventions to promote responsible optimal self-care practices. The success of engaging with and educating the population will require involving a range of cultural and social actors and networks to effect change. Our study shows the importance of studying self-care for managing acute health conditions, and we propose that the research agenda include these and their effectiveness and not only chronic illnesses. Finally, we recommend a national strategy to promote health literacy and self-care pursuant to the mandate of the UHC Law (Department of Health, 2019). This self-care strategy should contain a legal framework for reforms to promote a culture conducive to responsible self-care, including policy directions to promote research, improve T&CM regulations and strengthen health literacy. Through responsible and evidence-informed self-care, cost savings and improvement in quality of life can be achieved (Bauer *et al.*, 2022; Global Self-Care Federation, 2021).

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Further reading

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#	Key themes	Search details
PubMed		
1	Self-care practices	("self-care" [tiab] OR "Self-Care"[Mesh] OR "self-medication" [tiab] OR "Self-Medication"[Mesh] OR "OTC" [tiab] OR "OTC switch" [tiab] OR "over the counter" [tiab] OR "Nonprescription Drugs"[Mesh] OR "self-efficacy" [tiab] OR "Self-Efficacy"[Mesh] OR "self-management" [tiab] OR "Self-Management"[Mesh] OR "prescription sharing" [tiab] OR "TCAM" [tiab] OR "Complementary Therapies"[Mesh] OR "traditional medicine" [tiab] OR "traditional therapy" [tiab] OR "complementary therapies" [tiab] OR "complementary and alternative medicine" [tiab] OR "herbal medicine" [tiab] OR "herbal therapy" [tiab] OR "medicinal herbs" [tiab] OR "herbal extract" [tiab] OR "herbal product" [tiab] OR "herbal supplement" [tiab])
2	Health and health conditions	("health" [tiab] OR "Health"[Mesh] OR "minor ailment" [tiab] OR "acute condition" [tiab] OR "low back pain" [tiab] OR "Low Back Pain"[Mesh] OR "allergic rhinitis" [tiab] OR "Rhinitis, Allergic"[Mesh] OR "acute pain" [tiab] OR "Acute Pain"[Mesh] OR "cough" [tiab] OR "Cough"[Mesh] OR "cold" [tiab] OR "Common Cold"[Mesh] OR "diarrhea" [tiab] OR "Diarrhea"[Mesh] OR "constipation" [tiab] OR "Constipation"[Mesh] OR "stress" [tiab] OR "Stress, Psychological"[Mesh])
3	Philippines	(Philippines [tiab] OR "Philippines"[Mesh])
		Search strategy: #1 AND #2 AND #3
Scopus		
1	Self-care practices	TITLE-ABS-KEY ("self-care") OR TITLE-ABS-KEY ("self-medication") OR TITLE-ABS-KEY ("OTC") OR TITLE-ABS-KEY ("OTC switch") OR TITLE-ABS-KEY ("over the counter") OR TITLE-ABS-KEY ("nonprescription") OR TITLE-ABS-KEY ("self-efficacy") OR TITLE-ABS-KEY ("self-management") OR TITLE-ABS-KEY ("prescription sharing") OR TITLE-ABS-KEY ("TCAM") OR TITLE-ABS-KEY ("complementary therapies") OR TITLE-ABS-KEY ("traditional medicine") OR TITLE-ABS-KEY ("traditional medicine") OR TITLE-ABS-KEY ("traditional therapy") OR TITLE-ABS-KEY ("complementary therapy") OR TITLE-ABS-KEY ("complementary and alternative medicine") OR TITLE-ABS-KEY ("herbal medicine") OR TITLE-ABS-KEY ("herbal therapy") OR TITLE-ABS-KEY ("medicinal herb") OR TITLE-ABS-KEY ("herbal extract") OR TITLE-ABS-KEY ("herbal product") OR TITLE-ABS-KEY ("herbal supplement")
2	Health and health conditions	TITLE-ABS-KEY ("health") OR TITLE-ABS-KEY ("minor ailment") OR TITLE-ABS-KEY ("acute condition") OR TITLE-ABS-KEY ("low back pain") OR TITLE-ABS-KEY ("back pain") OR TITLE-ABS-KEY ("allergic rhinitis") OR TITLE-ABS-KEY ("acute pain") OR TITLE-ABS-KEY ("cough") OR TITLE-ABS-KEY ("cold") OR TITLE-ABS-KEY ("common cold") OR TITLE-ABS-KEY ("diarrhea") OR TITLE-ABS-KEY ("constipation") OR TITLE-ABS-KEY ("stress")
3	Philippines	TITLE-ABS-KEY ("Philippines")

(*continued*)

Table S1. Summary of the included studies

#	Key themes	Search details
		Search strategy: #1 AND #2 AND #3
CINAHL		
1	Self-care practices	(MH "Self-Care Agency") OR (MH "Self-Care+") OR "self-care" OR (MH "Self-Management") OR (MH "Self-Diagnosis+") OR "self-management" OR (MH "Self-Medication") OR "self-medication" OR "prescription sharing" OR "OTC" OR "OTC switch" OR "over the counter" OR "nonprescription drugs" OR (MH "Self-Efficacy") OR (MH "Drugs, Non-Prescription") OR "self-efficacy" OR (MH "Alternative Therapies+") OR "complementary and alternative medicine" OR (MH "Medicine, Herbal+") OR "herbal medicine" OR "TCAM" or "complementary therapies" OR "traditional medicine" OR "traditional therapy" OR "medicinal herbs" OR "herbal therapy" OR "herbal extract" OR "herbal product" OR "herbal supplement"
2	Health and health conditions	(MH "Health+") OR "health" OR (MH "Acute Disease") OR "acute condition" OR "minor ailment" OR (MH "Low Back Pain") OR "low back pain" OR (MH "Back Pain+") OR MH "Rhinitis, Allergic, Perennial") OR (MH "Rhinitis, Allergic, Seasonal") OR "allergic rhinitis" OR "acute pain" OR (MH "Cough") OR "cough" OR (MH "Cold+") OR "cold" OR (MH "Common Cold") OR (MH "Diarrhea") OR "diarrhea" OR (MH "Constipation+") OR "constipation" OR (MH "Stress+") OR "stress" OR (MH "Stress, Physiological+")
3	Philippines	(MH "Philippines") OR "Philippines"
		Search strategy: #1 AND #2 AND #3
ProQuest Central		
1	Self-care practices	MESH(Self-Care) OR AB,TI(self-care) OR MESH(Self-Medication) OR AB,TI(self-medication) OR AB,TI(OTC) OR AB,TI("OTC switch") OR AB,TI("over the counter") OR MESH(Nonprescription Drugs) OR MESH(Self-Efficacy) OR AB,TI(self-efficacy) OR AB,TI(self-management) OR MESH(Self-Management) OR AB,TI(prescription sharing) OR AB,TI(TCAM) OR MESH(Complementary Therapies) OR AB,TI(traditional medicine) OR AB,TI(traditional therapy) OR AB,TI(complementary therapies) OR AB,TI(complementary and alternative medicine) OR AB,TI(herbal medicine) OR AB,TI(herbal therapy) OR AB,TI(medicinal herbs) OR AB,TI(herbal extract) OR AB,TI(herbal product) OR AB,TI(herbal supplement)
2	Health and health conditions	MESH(Health) OR AB,TI(health) OR AB,TI("minor ailment") OR AB,TI("acute condition") OR MESH(Low Back Pain) OR AB,TI("low back pain") OR MESH(Rhinitis, Allergic) OR AB,TI(allergic rhinitis) OR MESH(Acute Pain) OR AB,TI("acute pain") OR MESH(Cough) OR AB,TI(cough) OR MESH(Common Cold) OR AB,TI(cold) OR MESH(Diarrhea) OR AB,TI(diarrhea) OR MESH(Constipation) OR AB,TI(constipation) OR MESH(Stress, Psychological) OR AB,TI(stress)
3	Philippines	MESH(Philippines) OR AB,TI(Philippines)
	Search strategy: #1 AND #2 AND #3	
JSTOR		
(((ab:(self-care) OR ab:(self-management)) AND ab:(health)) AND (Philippines)) AND la:(eng OR en)		
Subject restrictions		health policy, health sciences, political science, population studies, public health, public policy and administration
HERDIN		
"self-care" OR "self-management" OR "self-medication" OR "prescription sharing" OR "complementary therapy"		

Table S1. **Source(s):** Author's work

Table S2.
Summary of the included studies

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
1	Balangcod TD and Balangcod AKD (2011)	Ethnomedical knowledge of plants and healthcare practices among the *Kalanguya* tribe in Tinoc, Ifugao, Luzon, Philippines	To document the indigenous knowledge of medicinal plants and healthcare practices among the *Kalanguya* in Tinoc, Ifugao and provide insights on some possible threats to their traditional knowledge	• Mixed-methods • Extensive survey, focus group discussions, interviews	Tinoc, Ifugao	A total of 150 individuals (16–90 years) were interviewed including the elderly and *mabakis* (local priests)	• Colds: Mixture of leaves of *Hibiscus rosa-sinensis*, *Citrus limon*, *Persea americana* • Stomachache, dysentery, cough, muscle cramps: *Hapal* • Stomachache and stomach-related ailments: Preparations made by boiling leaves or stems or both, then taken as tea
2	Balilla *et al.* (2014)	The assimilation of Western medicine into a semi-nomadic healthcare system: A case study of the Indigenous *Aeta Magbukún,* Philippines	To provide a snapshot in time of simple *Aeta Magbukún* demographics, the self-reported subjective health levels and level of traditional ethnomedicine and Western medicine use within the past 2 weeks	• Mixed-methods • Participant observations, informal interviews and community health survey	*Aeta* village, Mariveles, Bataan	Entire *Aeta Magbukún* community with 107 members and 21 families	• Cough and colds: Honey • Stomach pain: *Pangangagun* (traditional healing by a shaman) later taken to the hospital
3	Barber *et al.* (2017)	Prevalence and correlates of antibiotic sharing in the Philippines: antibiotic misconceptions and community-level access to non-medical sources of antibiotics	To identify sociodemographic, knowledge and attitudinal correlates to antibiotic sharing among a community-based sample of adults (age 18 and older) in a low-income setting of the Philippines and to explore community-level data on informal antibiotic distribution in roadside stands	• Cross-sectional • Self-administered survey	Low-income area in Central Visayas	3,007 participants (age 18 or older) were recruited via convenience sampling	Common cold and cough: Antibiotics

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
4	Bernardo and Tolentino (2019)	Community social capital and health status and health-seeking behaviors among the elderly	To examine the relationships of community social capital and health status and health-seeking behaviors of the elderly in a rural community in the Philippines	• Cross-sectional • Survey	Rural community of Quezon, Nueva Ecija	120 elderly aged 60 years and above randomly selected for the survey	Cough and headache: Self-medication (unspecified)
5	Caringal-Go *et al.* (2021)	Work-life balance crafting during COVID-19: exploring strategies of telecommuting employees in the Philippines	To explore the work-life balance (WLB) crafting strategies of employees with telecommuting work arrangements during the COVID-19 pandemic	• Mixed-methods • Online survey	Philippines	170 participants 18 years old and above and have been employed for at least 6 months at the time of the survey	• Stress: Exercise after work • Burn out: Quick breaks from work or disengage by navigating the fluidity between work, rest and leisure
6	Cleofas (2021)	Self-care practices and online student engagement during Covid-19 in the Philippines: A mixed-methods study	To determine the relationship between self-care practices and online student engagement and describe the barriers in practising self-care among undergraduate students during the pandemic	• Mixed-methods • Online survey	De La Salle University	202 university students	• Stress: Meet with friends • Stress: Spend time outside to get fresh air

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
7	Cordero and Alejandro (2021)	Medicinal plants used by the indigenous *Ati* tribe in Tobias Fornier, Antique, Philippines	To document the ethnobotanical knowledge on the medicinal plants used by the indigenous *Ati* tribe in Sitio Pantad, Brgy. Igcalawagan, Tobias Fornier, Antique	• Qualitative • Interviews and focus group discussions	Sitio Pantad, Brgy. Igcalawagan, Tobias Fornier (formerly Dao) Antique	22 informants (>10% of the *Ati* population in Sitio Pantad)	• Cough, diarrhea, stomachache, pulmonary problems: *C. cainito* leaves, stem, or barks boiled alone or with *Syzygium cumini (L.)* Skeels and *Pithecellobium dulce (Roxb.)* Benth to be taken orally • Diarrhea, stomachache: *H. suaveolens* leaves heated and crushed, then applied on the stomach; leaves pounded and wrapped in banana leaf with seven rice grains, heated over the flame, then applied; roots boiled and decoction taken orally
8	Cruz *et al.* (2011)	Awareness, usage and perception of food supplements among adult residents in Metro Manila	To determine extent of current awareness, usage and perception of food supplements among adult residents in Metro Manila	• Cross-sectional • Survey	Metro Manila	1,809 respondents (800 male and 1,009 female) aged 20 years and older who were subjects from sampled households included in the 7th National Nutrition Survey (NNS) conducted in Metro Manila in 2008	Cough: Food supplements

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
9	Del Mundo *et al.* (2019)	Solo mother's challenges and coping strategies: A phenomenological study in City of Manila	To chart the challenges faced by solo mothers and to identify the coping strategies they employed through understanding their lived experiences	• Qualitative • Interviews	Manila	13 solo mothers who raised their child alone	Stress: Engaging in various activities including hiking, mountain climbing, exercising and dancing
10	Hardon (1987)	The use of modern pharmaceuticals in a Filipino village: Doctor's prescription and self-medication	To describe the use of modern pharmaceuticals in the common childhood illnesses of diarrhoea and respiratory infection in a Filipino rural village	• Cross-sectional • Survey	Rural village	Mothers of 51 children under the age of 18 months	• Diarrhea: No medication, self-medication and doctors' consultation • Diarrhea: Pharmaceuticals including anti-diarrheal combination products, analgesics, antibiotics • Cough: No medication, self-medication and doctors' consultation • Cough: Analgesics, cough syrups, antibiotics and combinations of medications
11	Katelaris *et al.* (2011)	Nasal allergies in the Asian–Pacific population: Results from the Allergies in Asia–Pacific Survey	To assess the prevalence of physician-diagnosed allergic rhinitis (AR) and its impact on quality of life (QOL), as well as existing treatment paradigms and patterns and gaps associated with AR	• Cross-sectional • Interviewer-assisted survey	Philippines	1,285 individuals aged 4 and above who have reported currently experiencing or being treated for *AR* and having been diagnosed by a physician as having *AR*, nasal allergies (NAs), hay fever, or sinus disease within the past 1 year	• Allergic rhinitis: Used prescribed medication • Allergic rhinitis: Used over-the-counter medication

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
12	Kim *et al.* (2014)	Factors influencing healthcare utilization among children with pneumonia in Muntinlupa City, the Philippines	To evaluate factors influencing choice of healthcare institution to bring their children with pneumonia symptoms in Muntinlupa City, the Philippines	• Cross-sectional • Survey	Muntinlupa City	1,330 caregivers of children aged 4 and below with pneumonia symptoms	Pneumonia symptoms including cough: Bought medications without a prescription (choosing a brand previously prescribed by a doctor; choosing a brand suggested by a pharmacist)
13	Maglalang-Co *et al.* (1999)	Drug utilization patterns and their determinants among self-medicators of common illnesses in Barangay 402, Zone 41, 4th District, Sampaloc, Manila	To determine the pattern of drug utilization for cough, fever, headache and diarrhea and to describe the factors that influence drug use in the community among self-medicators	• Cross-sectional • Survey	Sampaloc, Manila	195 households with 1,051 family members who reported one or more of the common illnesses considered in the study	• Cough: mucolytics, expectorants, antibiotics, antitussives, herbal [oregano (*Origanum vulgare*), lagundi (*Vitex negundo*), luya (*Zingiber officinale*), Chinese herbs)], bronchodilators • Diarrhea: Attapulgite, oral rehydration solution, Loperamide, Diphenoxylate, antibiotics, Herbal, Antacid
14	Marquez *et al.* (2020)	A descriptive study on the preferences of community members toward utilization of herbal medication compared to synthetic drugs in the National Capital Region, Philippines	To determine the preference of specific community members in the National Capital Region toward the usage of herbal medications compared to synthetic drugs	• Cross-sectional • Survey	National Capital Region	50 aged above 30 purposely selected adult participants living within the National Capital Region	• Aches: Crushed leaves of oregano • Stomachache and other gastric problems: Decoctions of oregano leaves • Respiratory tract: Crushed and inhaled Oregano leaves

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
15	McNee *et al.* (1995)	Responding to cough: Boholano illness classification and resort to care in response to childhood ARI	To explain health-seeking behavior of caretakers in response to ARI in children under five years of age	• Qualitative • In-depth interviews and focus group discussions	Bohol	101 caretakers of children under five years of age with ARI	• Cough: Home treatment, usually herbal mixtures and cough syrups • Cough due to sprain (*piang*) or winds (*panuhot*): Herbal therapies and massage through traditional healers • Cough with persistence of phlegm: Doctor who usually prescribes medications such as antibiotics
16	Morfe and Lim (2013)	Complementary and alternative medicine among Filipinos: prevalence, costs and patterns of use	To determine the prevalence, costs and patterns of complementary and alternative medicine (CAM) use among Filipinos and identifying likely factors that influence practice	• Cross-sectional • Survey	Hospital in Metro Manila	100 respondents aged 18 years or older	• Musculoskeletal pains: Aromatic and soothing oils, liniments and balms • Musculoskeletal pains: Manipulative therapy • Diarrhea: Local herbal concoctions
17	Nichter and Nichter (1993)	Acute respiratory illness (ARI): Popular health culture and mother's knowledge in the Philippines	To explore and understand local knowledge, sign recognition, perceptions of severity and cultural factors influencing health care seeking of mothers	• Qualitative • Interviews with structured research exercises	Oriental Mindoro	70 lower-class rural mothers with at least one child under 5 years of age	• ARI symptoms including cough and cold: Keeping a shirt on the child against the wind and changing a child's shirt to prevent perspiration drying on the back • ARI symptoms including cough: Antibiotics and over-the-counter cough syrup • ARI symptoms: Treatment by a traditional healer

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
18	Obermeyer *et al.* (2004)	Gender and medication use: An exploratory, multi-site study	To explore differences in women's and men's patterns of medication use	• Cross-sectional • Survey	Iloilo	80 participants aged 15–64 years old	• Body aches: Medicine (unspecified) • Respiratory: Medicine (unspecified) • Gastrointestinal: Medicine (unspecified) • Psychosomatic: Medicine (unspecified)
19	Ong and Kim (2014)	Quantitative ethnobotanical study of the medicinal plants used by the *Ati Negrito* indigenous group in Guimaras island, Philippines	To document the medicinal plants and their use in traditional therapies and to evaluate the medicinal plant knowledge and practices of the *Ati* indigenous people in Guimaras Island, Philippines	• Qualitative • Interviews	Guimaras	65 participants (about 10% of the entire Guimaras *Ati* population) with age range of 18–83 years old representing different social roles and positions were interviewed	• Cough: Buti-buti (*Aerva lanata* L.), sibuyas bombay (*Allium cepa* L*)*, Babana (*Annona muricata* L.), Baston ni San Jose (*Cordyline fruticosa* A. (L.).Chev), Artamisa (*Artemisia vulgaris* L.), Oregano Plectranthus amboinicus (Lour.) Spreng), Adgaw/Agdaw (*Premna odorata* Blanco), Lagundi (*Vitex trifolia* subsp. litoralis Steenis), Labnog/Lamnog (*Ficus septica* Burm.f.), Malunggay (*Moringa oleifera* L.), Tanglad *(Cymbopogon schoenanthus* (L.) Spreng.), Luy-a (*Zingiber officinale* Roscoe) • Stomachache: Hitang-hitang/Itang-itang (*Alstonia macrophylla* Wall. ex G.Don) • Diarrhea: *Rosas de baybayon (Catharanthus roseus* (L.) G.Don), *Abukado* (*Persea americana* Mill.), Santol *(Sandoricum koetjape* (Burm.f.) Merr.), Tagpo-bayi *(Ardisia elliptica* Thunb.), Tagpo-laki *(Ixora philippinensis* Merr)

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
							• Constipation: Kapayas (*Carica papaya* L.), Ubi (*Dioscorea alata* L.), Banayan (*Dioscorea glabra* Roxb.), Tugabang (*Corchorus olitorius* L.) • Diarrhea: Dapdap (*Erythrina variegata* L.), Luko-luko/Albaka (Hyptis suaveolens (L.) Poit.), Lumboy (*Syzygium cumini* (L.) Skeels), Kamatis (*Solanum lycopersicum* L.)
20	Sato *et al.* (2018)	Father's roles and perspectives on healthcare seeking for children with pneumonia: findings of a qualitative study in a rural community of the Philippines	To reveal fathers' roles and perspectives with respect to the selection of care and treatment for children with pneumonia in a remote island of the Philippines	• Qualitative • Semi-structured interviews	Municipality of Caibiran of Biliran Province in the Eastern Visayas Region	12 fathers whose children had pneumonia-like episodes in the 6 months prior to the interview	• Pneumonia-like symptoms including cough: Oregano and five-leaved chaste tree leaves (boiling the leaves, crushing or stemming the leaves, squeezing out the juice; adding lemon and sugar or milk) • Pneumonia-like symptoms including cough: Antibiotics bought without prescription or obtained from neighbors and relatives

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
21	Simon *et al.* (1996)	Caretakers' management of childhood acute respiratory infections (ARI) and the use of antibiotics, Bohol, the Philippines	To describe home management, health-seeking behavior and attitudes and practices with regard to the administration of pharmaceuticals for ARI	• Qualitative • Interviews and observations	Bohol	65 mothers and 12 grandmothers presenting with sick children under 5 years of age	• ARI symptoms including cough: Traditional remedies such as herbs, boiled water (*tuob*), infusions of onion leaves, lemon, lime, tomato juice • ARI symptoms including cough: medicines, cough syrups, embrocations such as Vicks Vaporub™, antipyretics, analgesics and bronchodilators from previous prescriptions • ARI symptoms: Specific over-the-counter and prescription medicines including Tikitiki™ syrup, Aspilet™, Biogesic™, Coricidin™, Cortal, Medicol™, Paracetamol syrup, Tempra™, Rexidol™, Loviscol™, Salbutamol, Ventolin, Bricanyl™, Afebrin™ and vitamins and Vicks Vaporub™, Kerosene and other rubefacients for the chest and antibiotics although seldom
22	Tupasi *et al.* (1989)	Child care practices of mothers: implications for intervention in acute respiratory infections (ARI)	To identify determinants of child care practices of mothers	• Qualitative • Survey and focus group discussions	Bohol	5,603 mothers of children under 5 years of age for the survey and 56 included for the focus group discussions	• ARI symptoms including cough: Medicines previously prescribed or medicines chosen by trial-and-error based on advice of relatives or health workers or on advertisements • ARI symptoms including cough: Herbal medicines, antibiotics, antipyretics, cough mixtures, massage with balm of oil and kerosene

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
23	Villanueva (2021)	Indigenous healing practices, policies and perceptions of young and elderly *Ga'dang* People in Nueva Vizcaya, Philippines	To explore typical forms of indigenous healing practices, policies and perceptions of young and elderly *Ga'dang* (Indigenous Filipino peoples) in Nueva Vizcaya, Philippines	• Qualitative • Observations, focus group discussions, interviews	Nueva Vizcaya	*Ga'dang* elderly in Nueva Vizcaya	• Body pain, stomach ache: Massage and body therapy; decoction of leaves of atis, anonang (*Cordia dichotoma*) and bamboo for bathing, then application of coconut oil to the body with pain • Body pain and other pain brought about by stress and tension: Cotton with coconut oil set on fire, then covered with glass • Stomach ache for children: Coconut oil to the stomach • Cough: smoke from dried leaves or juice of extracted leaves [lasona (*Allium cepa*); gawed/ikmo/momma *(Piper betle*)]
24	Visaya-Ceniza (2015)	Dig to live: An investigation of the psychological well-being of women miners in Davao Oriental, Southeastern Philippines	To determine the psychosocial health status of women artisanal miners in the Philippines	• Mixed-methods • Survey, interviews, observations, focus group discussions	Davao Oriental	26 women miners ages 26–70	• Stress: Coping through mining work to regain a sense of self-worth • Stress: Prayers • Stress: Join religious organizations to express feelings with fellow members • Stress: Watching teleseryes as a means of relaxation • Stress: Pastimes including karaoke, bingo, other social activities

(*continued*)

Table S2.

#	Authors (Year)	Title	Objectives	Design and method of data collection	Setting	Population and sample size	Results
25	Yoder and Hornik (1994)	Perceptions of severity of diarrhea and treatment choice: comparative study of HealthCom sites	To examine the association of treatments given for childhood diarrhea with the severity of the illness as perceived by mothers and caretakers	• Cross-sectional • Survey	Philippines	1,200 women with one or more children less than 5 years old	• Diarrhea: Oral rehydration therapy • Diarrhea: Herbal medicine and enema • Diarrhea: Antibotics and anti-diarrheals
26	Zarsuelo *et al.* (2018)	Review of regulatory policies on and benefits of herbal medicine in the Philippines	To review the current regulatory policies on production, registration, promotion and use of herbal medicines in the country	• Review	Philippines	Local policies and guidelines	• Cough: Lagundi • Diarrheal diseases: *Tsaang gubat* (*Carmona retusa* (Vahl) Masamune) • Body aches and pain: Yerba buena

Source(s): Authors' work

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