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Blom, Jan Dirk; Poulina, Igmarr T.; van Gellecum, Trevor L.; Hoek, Hans W.

Published in:
Transcultural psychiatry

DOI:
[10.1177/1363461515589709](https://doi.org/10.1177/1363461515589709)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Blom, J. D., Poulina, I. T., van Gellecum, T. L., & Hoek, H. W. (2015). Traditional healing practices originating in Aruba, Bonaire, and Curacao: A review of the literature on psychiatry and Brua. *Transcultural psychiatry*, 52(6), 840-860. <https://doi.org/10.1177/1363461515589709>

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Traditional healing practices originating in Aruba, Bonaire, and Curaçao: A review of the literature on psychiatry and Brua

Jan Dirk Blom

Parnassia Psychiatric Institute, the Netherlands
University of Groningen

Igmar T. Poulina

Parnassia Psychiatric Institute, the Netherlands

Trevor L. van Gellecum

Parnassia Psychiatric Institute, the Netherlands

Hans W. Hoek

Parnassia Psychiatric Institute, the Netherlands
University of Groningen
Columbia University

Abstract

Brua is an Afro-Caribbean religion and healing tradition from the southern part of the former Netherlands Antilles. Like other Caribbean healing traditions, it plays a significant role in shaping how individuals experience and express disorders which Western health professionals consider to require psychiatric care. Because little has been published on Brua, and because patients from Aruba, Bonaire, and Curaçao are often reluctant to discuss their commitment to this tradition, they are often misdiagnosed and either over- or undertreated by biomedically trained health professionals. The present paper provides a review of the literature on Brua and its relation to psychiatry. A systematic search was carried out in PubMed, the Ovid database, Google Scholar, and the historical literature. Our search yielded 35 texts on Brua, including three peer-reviewed scientific papers and eight academic theses. From those texts Brua emerges as a holistic patchwork of creolized beliefs and practices which are considered to be both cause and remedy for a wide variety of ailments. Despite the fact that tension between

Corresponding author:

J. D. Blom, Parnassia Psychiatric Institute, KIWISTRAAT 43, 2552 DH, THE HAGUE, THE NETHERLANDS.

Email: jd.blom@parnassia.nl

the Brua discourse and Western-oriented psychiatric practice is significant, adherence to Brua does not seem to cause much patient delay in help-seeking. However, belief in Brua as a possible source of mental and physical complaints, as well as patients' frequent recourse to Brua practices, including the use of hallucinogens, may affect the diagnosis and treatment of mental disorders.

Keywords

Afro-Caribbean religion, Dutch-Antillean folk religion, magic, sorcery, transcultural psychiatry

Introduction

Brua is an Afro-Caribbean religion and healing tradition that originates in Aruba, Bonaire, and Curaçao, the “ABC Islands” of what was formerly known variously as the Netherlands Antilles, Dutch Antilles, Dutch Caribbean, and Dutch West Indies. The islands are located in the southernmost part of the Lesser Antilles, off the coast of Venezuela. Before their discovery in 1499 by the Spanish explorer Alonso de Ojeda (*c.* 1468–1515) they were inhabited by small groups of Arawak Indians from the South American mainland (Boerstra, 1982). During the 1630s the islands were occupied by the Dutch West India Company, and from 1635 onwards Dutch settlements arose, effectively turning the island group into a Dutch colony and a commercial hub for Dutch traders, who began bringing slaves from West Africa in 1658. During the era known as the Second Atlantic System (Wallerstein, 1974), more than 100,000 slaves were disembarked on Curaçao. After a brief rest, most of them were transferred to slave-labour plantations and salt marshes on other Caribbean islands or the South American mainland, but several thousand of them stayed behind on the islands to work for the Dutch (Jordaan, 2013). After two brief intervals of reign by the British beginning in 1800, the ABC Islands were returned to the Dutch Kingdom in 1816. Two years earlier, King Willem I (1772–1843) had issued a royal decree that forbade any Dutch participation in the slave trade, but it wasn't until 1863 that the Dutch abolished slavery altogether (Postma, 2008). In 1865 the ABC Islands gained a limited autonomy, and in 1954 they were granted political autonomy within the Kingdom of the Netherlands. In 1986 Aruba became a separate country within the Kingdom, and in 2010, upon the dissolution of the Netherlands Antilles, Curaçao gained a similar status while Bonaire became a special municipality of the Netherlands proper. But ties with the Kingdom have always remained close due to trade, tourism, governmental influences, and the ongoing presence of Dutch military forces on the islands. Moreover, 134,774 people originating from the former Netherlands Antilles (including the islands Saba, Sint Maarten, and Sint Eustatius) live in the Netherlands; this is almost half of the number of people currently inhabiting the islands (283,935; Centraal Bureau voor de Statistiek, 2013). The official language of the islands was Dutch until 2007, when Papiamentu (the people's every-day language of communication)

gained a similar status. Health care on the islands—including mental health care—is comparable with nonacademic health care in the United States and Europe, with doctors mainly trained in the Netherlands. In rare cases where the islands' facilities fall short, patients can be airlifted abroad to receive the medical attention they require.

In spite of the presence of easily accessible medical facilities, Brua continues to be a popular healing tradition on the ABC Islands. With roots in the fusion of cultures that took place on the islands from the 17th century onwards, it constitutes a complex set of cultural understandings which may have served, among many other things, as a means for Afro-Caribbeans to retain their cultural and religious identity amidst foreign and oppressive influences, and as a set of culturally sanctioned strategies for coping with the harsh circumstances brought about by slavery and the scarcity of medical care. Originally, Brua was a religion practiced exclusively by slaves, a syncretism amalgamated out of the religious heritage of their various countries of origin, Roman Catholicism (as practiced by the Europeans on the islands), and the indigenous beliefs and practices of the Arawaks (Allen, 2007). But gradually, Brua came to pervade all social, ethnic, and economic strata and to constitute the unofficial religion of the majority of Dutch Antilleans (the official religion of most islanders being Roman Catholicism). There are no prevalence studies on beliefs related to Brua, but one source (Hoffer, 2009) provides an educated guess that today some 85% of the inhabitants of Curaçao are involved at least to some extent with Brua. Possibly the same holds true for inhabitants of the other two islands (Blom, Poulina, & van Gellecum, 2013).

Brua has much in common with other Caribbean religions, such as Voodoo, Santería, Espiritismo, Revival, Rastafari, and Obeah (which is practiced on the northern islands of the former Netherlands Antilles; see Bell [1889] and Murrell [2014]). But in contrast to these other Caribbean religions, which have been the subject of increasingly detailed study and documentation (for an overview see Sutherland, Moodley, & Chevannes, 2014), relatively little is known about Brua. As a consequence, and also due to the reluctance of patients to disclose their possible involvement with Brua, biomedically trained—and especially non-Antillean—health professionals tend to have a hard time fathoming their patients' idioms of distress. The following case description serves to illustrate idioms of distress related to Brua.

Mr. A was a 44-year-old male from Aruba who was referred to a psychiatric outpatient clinic in the Netherlands because of paranoia and anxiety. In the past he had suffered from trauma capitis and a frozen shoulder, and he had been treated during the prior seven months with citalopram (and briefly with haloperidol) for a depressive disorder and possible post-traumatic stress disorder. During adolescence and young adulthood he had been a member of a street gang, lived a violent life, and used alcohol, cannabis, and ecstasy. Mr. A had left that life behind many years ago, was married with children, and had a job, but he was still afraid of repercussions from former gang members and therefore spent most of his time indoors with the curtains

closed. And yet even indoors he did not feel safe because of frequent flashbacks involving his violent past and a marked fear of Brua practices. He believed that a powerful “Indian” spirit resided in his body, and that others tried to steal it away from him at night. He often felt—and saw—a black creature pressing him down upon the bed. During those nightly attacks he was unable to move or scream, and when he finally could, he sometimes inadvertently hit his wife. He believed that one of his ancestors might have done something bad, and that his family was therefore cursed. He asserted that he was a faithful Catholic and that he had never sought any help from traditional healers, but friends and family members had given him ample advice about herbs, lavages, prayers to San Miguel and other saints, and rituals with coins and other objects. He had also attended a *montamentoe* ceremony where spirits had been evoked with the aid of an Ouija board. The psychiatric evaluation yielded evidence of paranoia, post-traumatic flashbacks, anxiety, and a recurring incubus phenomenon with sleep paralysis. The physical examination and blood tests were normal. Patient A was diagnosed with post-traumatic stress disorder, antisocial personality disorder, and sleep paralysis, and treated with valproic acid in an attempt to ameliorate the sleep paralysis attacks and temper outbursts. He was also advised to seek the help of a Brua expert to come to terms with his fear of sorcery.

Methods

For the purpose of the present review paper we carried out a systematic search in PubMed, the Ovid database (comprising EMBASE [1980 through February 2014], Ovid Medline [1948 through February 2014], and PsycINFO [1806 through February 2014]), as well as the historical literature. In each database, the search terms *Brua* and *Bruha* were used separately, as well as in combination with “psychiatry” and “mental disorder.” Finally, we performed a search through Google Scholar using the same terms. All references in English, Dutch, and Papiamentu were included.

Results

Like many other Afro-Caribbean religions, Brua is a strictly oral tradition. There are no written courses or textbooks available, and most of what is known about it stems from Dutch and Dutch-Antillean researchers, law enforcement agents, and clergymen who studied the tradition from the vantage point of curious outsiders. Two important exceptions are the practical manuals published by Garmers and Lim (1967, 1975). In all, our search yielded 35 texts on Brua, comprising three peer-reviewed scientific papers (Blom et al., 2013; Jessurun & Raes, 2005; Minkenberg & Blom, 2015), five non-peer-reviewed papers (Allen, 1989; Jansen, 1910; Latour, 1949; Marks, 1971; Mensinga & Gernaat, 1996), eight academic theses (Allen, 1990, 2007; Bernadina, 1981; de Haseth, 1983; Evers, 1986, 1990; Mensinga, 1994; van Rijn, 1991), 10 books (Brenneker, 1961a, 1961b, 1966; Garmers &

Lim, 1967, 1975; Lauffer, 1975; Rutten, 2003; van Capelle, 1926; van Reeth, 1937; Witteveen & Harms, 2009), and nine book chapters (Allen, 2010, 2012; Alofs, 2008; Brenneker, 1971; Hoffer, 2009, 2012; Streefkerk, 1977; Theloosen, 2012; Thomas, 1998). In addition, we found three books on Dutch-Antillean herbal medicine (Grupo Uni Noord, 2011; Veeris, 2010a, 2010b). Except for a paper in Dutch by our own group (Blom et al., 2013), no prior scientific reviews were found. In what follows, we will provide an overview of Brua as a religion and healing tradition, shed some light on Brua practitioners and their training, discuss the role of magic and sorcery in Brua practices with and without recourse to psychotropic substances, and assess the tensions between traditional Brua practices and Western biomedical practices.

Brua as religion and healing tradition

The Papiamentu terms *Brua* and *Brueria* (or *Bruha* and *Bruheria*, as they are spelled in Aruba) originate from the Spanish word *bruja*, which means “witch.” From the literature we collected, Brua emerges as a patchwork of creolized beliefs and practices which revolve around the notion that natural, spiritual, as well as supernatural forces are at work in the world, that these forces stem from a single living source, and that they can be used instrumentally to attain certain goals in life. These goals can be of a material or immaterial nature, and they can range from health-related, financial, legal, social, romantic, and sexual to manipulative or downright aggressive. Thus, Brua appears to meet many needs, including religious and existential concerns, and to extend well beyond medicine’s core purview of promoting physical and mental health. Because of the association with sorcery, sometimes the alternative expression *trabou di misterio* (“mystery work”) is used (Allen, 2010).

The Brua discourse, in all its varieties and shapes, is firmly rooted in religion. In conformity with Roman Catholic faith, most of its adherents conceptualize the Christian God (*Dio*, *Djo* or *papa Dios*) as the one true deity. In prayer, they often address various Catholic saints, who are sometimes conceptualized as manifestations of African gods and spirits (i.e., *spiritu*; see Mensinga & Gernaat, 1996) and sometimes as mediators between those metaphysical entities and man (Allen, 2012). Thus, San Marco de León (i.e., Mark the Evangelist) is often called upon to calm and anoint people in distress, and Santa Barbara (an early Christian saint and martyr) to oust bad spirits. San Antonio de Padua (1195–1231), a Portuguese priest and friar also referred to as *Lele Toni*, is venerated for providing good fortune, money, or a faithful partner, and for helping to retrieve lost objects. On June 13, when *Lele Toni Day* is celebrated, the saint’s altar is traditionally adorned with flowers, fruits, and bottles of liquor. But when it is felt that the saint has failed to deliver, he can just as easily be “blinded” by having his statue placed in a corner facing the wall—or worse, upside down in a bucket of water (Allen, 2012). Apart from addressing Catholic saints who may or may not represent African spirits or gods, people may also direct their prayers to the *almasola*. Also known as *homber chiki* (“little man”) or *dzjindzjin* (probably derived from the Arab noun *djinn*, which

refers to a spirit made out of smokeless fire), this metaphysical being is believed to live in the ocean, from whence he can strike out at anyone, and to be either the devil's servant or the devil himself (Ansano, 1990; Brenneker, 1966).

Treatment

Attempts to ameliorate mental (but also physical) problems with the aid of Brua practices often involve the use of pharmacopeia, lavages, dietary advice, or physical exercise, the exact application of which may vary from healer to healer. Veeris (2010b), for example, recommends the use of flowers of the *kayena* or Chinese rose (*Hibiscus rosa sinensis*) against the flu, and a tea brewed from the leaves of the *anesita* (white cedar, *Melia azedarach*) against green-coloured diarrhea in infants. In the case of an epileptic seizure—generally considered an emergency in Western biomedical practice—she recommends ground *netumaskat* (nutmeg, i.e., *Myrestica fragrans*, to be applied under the tongue) along with a hot water bottle under the soles of the feet. The leaves, bark, and seeds of the *Bèmbom* (drumstick tree, *Moringa oleifera*) are considered a potent remedy against herpes (Veeris, 2010b). In general, it is not unusual for healers to complement herbal remedies such as these with prayers, blessings, amulets, good-luck charms, or rituals which may or may not involve the invocation of saints, spirits, or gods.

Treatments often take place in the privacy of the healer's or patient's home. When they are limited in intensity and duration, and/or executed in the presence of a limited number of people, they are referred to as *trabou chikí* (i.e., “small works” or “small treatments”). When they require a significant investment on behalf of the healer, or take place on a grander scale—for example, in the presence of groups or even fairly large crowds, during ritual sessions called *montamentoe*—as attended once by Mr. A—(Bernadina, 1981) they are referred to as *trabou grandi* (“large treatments”; Allen, 2012). *Trabou chikí* and *trabou grandi* are not only carried out to promote or restore health, but also to bring fortune or misfortune, to deal with unrequited love, to predict an election outcome, or even to influence a judge's verdict from a distance (van der Velden, 2011). During such sessions, the boundaries between natural and supernatural methods—as conceptualized by Western discourses—often become blurred, and substances with well-established pharmacological properties may be prescribed for reasons apparently unrelated to their pharmacological effects. Equally blurred are the boundaries between magic (that is, attempts to manipulate a certain state of affairs through an appeal to supernatural forces) and sorcery (attempts to manipulate natural and supernatural forces with malevolent intent; Helman, 2007). Whenever there is tangible evidence of cause and effect, it is said that healers make use of natural forces—but in the absence of such evidence, the conclusion may rather be that magic or sorcery is at play (Garmers & Lim, 1975; Sereno, 1948). If one wishes to wreak havoc on people or their property, and shows oneself willing to pay a substantial price, then sorcery may be the method of choice. Of all Brua practices, sorcery is the one most shrouded in mystery. Allen (2012), Brenneker (1971), Rutten (2003) and Streefkerk (1977) provide

an example by detailing the pact with the *almasola*, which is allegedly sought to obtain great wealth, but which may require compensation in the form of a human sacrifice. It is said that this sacrifice may even involve the killing of one's own child, a dramatic deed allegedly inspired by ancient African cults originating in the Ashanti region (located in today's southern Ghana) or countries along what used to be called the Slave Coast (today's Togo, Benin, and western Nigeria; Geschiere, 1995; Williams, 1988). Various unsolved disappearances on the ABC Islands have been attributed to such human sacrifice, and especially when mothers or their children die young, disappear, or become mentally ill, there is a tendency to speculate about the possibility of a pact with the *almasola*. Such speculations may also surface when people, notably women, are unexpectedly successful at what they do, professionally or otherwise (Theloosen, 2012). It then may be rumoured that the woman involved (mockingly called a *tarai* or indecent woman) may have danced naked before the altar of the *almasola*—and perhaps copulated with him—to obtain the powers that allowed her to obtain her position at the expense of others.

Because people from the ABC Islands tend to be well acquainted with stories such as these, many are inclined to attribute various types of events or misfortune to Brua. Some examples are relatively simple complaints, such as a headache, stomachache, or nausea which may arise in the presence of “suspicious others” or under “suspicious circumstances”; unexplained setbacks in business, politics, or love; the repeated singing of the *trupial* (i.e., the songbird *Icterus icterus*); the sight of a black butterfly; the breaking of a mirror; bread crumbs under one's pillow; or items such a dead lizard, a large crab, white powder, or a black rag doll on one's porch or in the house. Circumstances such as these may lead people to suspect that Brua is at work, and that either they themselves or someone in their vicinity will soon fall prey to misfortune or come to die an agonizing death. Another well-known example is the unexpected success of others, as mentioned above, which may evoke envious reactions collectively known as “crab mentality,” “crabs in the bucket,” or “crab antics” (Wilson, 1995). As indicated by authors from diverging disciplines in a book exclusively devoted to the subject (Cicilia, 2012), crab mentality starts from the unconstructive premise that, “If you succeed it is less likely that I will succeed,” and is brought into practice with the aid of a variety of strategies ranging from gossip and calumny to blackmailing, poisoning, and sorcery.

Protective measures

It is believed that various countermeasures can be taken to protect oneself against sorcery. *Furá* (“armouring”) can allegedly be obtained by wearing a *kontra* (amulet) which generally consists of a small pouch filled with tiny objects such as maize, a clove of garlic, a stone found at the intersection of two roads, or some incense; by keeping cards with the images of saints (such as San Gregorio Hernandez [1864–1919], a Venezuelan physician who was known for treating the

poor for free, and was killed in a car accident while visiting one of his patients); or by keeping a house altar adorned with the image of María Lionza (the daughter of a 16th-century Indian chief from Venezuela who is worshipped as a goddess of love, peace, nature, and harmony). Protection of one's home is sought by painting a cross on one of its outer walls or by keeping a black hen with curled feathers (*galinja pretu pluma birá*, *galinja risau*, *galinja djindja*, or “Brua chicken”) to cleanse the yard. When the hen loses its feathers or goes bald, it is said that it probably digested a lot of poison. Newborns are often protected by applying indigo blue (*blaus inigo*, *blauwsel*) to the forehead or tailbone (although some adults appear to do this too), and both newborns and infants are made to wear the black-red seed of the *Abrus precatorius* on a chain to ward off the *oyada* (evil eye). If such protective measures fail to work, it may nevertheless be said that they helped to prevent worse (Brenneker, 1971). Supposedly it is much more difficult to find protection from *ezèh* (also referred to as *èszèh*, *zèh*, or *onzegbá*), a word used to describe spirits, ghosts, or—according to some accounts—people who have the capacity to either turn themselves into a lion or some other animal, or make themselves invisible by applying an ointment or by peeling off their skin, and who are considered capable of hurting and even killing others—especially newborns—by sucking them empty (Allen, 2007; Rutten, 2003; Streefkerk, 1977). According to Brua experts, it is equally difficult to defend oneself against a *kumbú* (i.e., a luminous, erring spirit) or a *zumbi*, the ghost of a morally bad person who is said to keep dwelling on the earth because even hell refuses to let it in. Those who seek to neutralize such acts of sorcery may feel the need to launch a counterattack—often, likewise, with the aid of sorcery, and preferably powered by an expert.

Brua practitioners

Experts on Brua are known under various names, including *Bruaman*, *hasidó di Brua* (Brua practitioner), *trahadó di misterio* (mystery worker), *kurioso* (traditional healer), and *miradó di kos* (clairvoyant), as well as less conspicuous names such as *halado* (masseur) and *trahadó* (worker, practitioner). When they confine themselves to natural treatment methods, they are designated as a *kuradó* (healer). Operating outside the boundaries of officially recognized institutions, most of these healers are quite secretive about their involvement with Brua. They may be hermits living far off in the *cunucu* (wasteland) or the man or woman next door with a regular day-time job, a family, and one or two cars on the lawn beneath the cashew tree. They are known to members of their society by reputation rather than by title or office, and they do not easily reveal their beliefs and practices to strangers. Although an official hierarchy is lacking, some practitioners are known as leaders, and others as initiated ones, recently initiated ones, or uninitiated ones (Mensinga, 1994). Individuals seeking to become a *kurioso* cannot simply apply for a course or training. They are typically selected by an established *kurioso* on the basis of special talents, a birth mark, their being born with a caul, a sign or revelation received during an ecstatic state or epileptic fit, certain intuitions, their descent from a

family of *kuriosonan*, or an episode of illness during which they are believed to be visited or possessed by gods or spirits (*misterio*; Mensinga, 1994). And yet others develop skills on their own by practice, by studying the literature of other traditions, or by seeking an education in Haiti or elsewhere (Witteveen & Harms, 2009).

The *kurioso* is consulted for a wide variety of reasons, but in actual practice this appears to be done mostly because of three groups of problems, namely: (a) simple somatic or mental problems for which the expertise of a physician is unwarranted; (b) nonmedical problems (i.e., those of a material, social, or spiritual nature); and (c) somatic or mental problems which surpass the expertise of physicians. Individuals diagnosed with incurable lung cancer or chronic schizophrenia, for example, may be referred to a *kurioso* in the hope of finding a cure. *Kuriosonan* also have a reputation for being able to revive individuals who appear to have died from *Datura* or some other toxic substance by rubbing the victim's body with an ointment which contains the equally poisonous *Solanum americanum* or American nightshade (Debbasch, 1963; Rutten, 2003). Contrary to the *Obeahman* from the Leeward Islands, the *kurioso* does not tend to ask a fee for his or her consultation. Instead, a gift is appreciated which should reflect how much the person involved values the results of the *kurioso's* intervention. A notable exception, as noted above, is sorcery, for which substantial sums of money can be asked.

Magic and sorcery

Many substances prescribed by Brua practitioners have well-established pharmacological effects (Rätsch, 2005; Rutten, 2003). And yet *kuriosonan* tend to apply them without much explicit knowledge of their chemical structure, pharmacodynamics, or pharmacokinetics. Instead, they traditionally endow them with magical properties or simply choose them on the basis of practice-based insights. For medical treatments, but also for the purpose of evoking visions and trance states, Brua practitioners often make use of psychoactive agents such as cigars, rum, and herbs. Rutten (2003) offers a scholarly overview of those herbs—which can be found in abundance on the islands—along with descriptions of their traditional use and pharmacological properties. When applied in toxic dosages, substances containing neurotropic alkaloids, for example, are known to be capable of inducing a cholinergic delirium or even coma and death. Applied in more modest dosages, they may evoke visual hallucinations and metamorphopsias (i.e., visual distortions), as well as compound and panoramic hallucinations (i.e., hallucinations replacing the entire sensory input picture). A quite unique effect—and quite specific to the alkaloid-induced hallucinoses—is the kinesthetic hallucination, which is characterized by the illusory bodily sensation of moving or flying (Blom, 2010). It has been suggested that the use of such neurotropic alkaloids may well have been responsible—along with the dire wish to be reunited with one's relatives—for the many stories about levitation and magical flights back to Africa (i.e., transvection) that were and are told on the islands, even today (Allen, 2007; Rutten, 2003). It is

not unusual for magical and scientific explanations to go hand in hand on the ABC Islands. Thus, it is believed by many inhabitants that spirits dwell in the islands' flora, including the tamarind tree (*Tamarindus indica*), the *indju* (*Prosopis juliflora*), and the *manzanilla* (*Hippomane mancinella*), and that these spirits are responsible for lending the preparations made out of those trees their healing or toxic powers. Legend has it that these spirits can even "take" a person who happens to sleep beneath such a tree. As regards the *manzanilla*, also known as "death tree" or "zombie apple" with its tiny yellow-greenish apples, it is certainly wise not to rest beneath it, especially during the rainy season. With its extremely poisonous diterpenes, the *manzanilla* is one of the most dangerous poisonous plants of tropical America. Its leaves and seeds used to be employed to create arrow poison. Ingestion of those leaves and seeds may cause blistering of the oral cavity, vomiting, diarrhea, colic pains, sialorrhoea, hypotension, shock, collapse, and occasionally death, while mere contact with the skin or mucous membranes is bound to cause extreme irritation and blistering (Rutten, 2003), which is why the trees are often marked with a string of red cloth or a written sign to warn the unsuspecting passer-by not to come near.

Accounts of sorcery or "evil Brua" often involve dancing and coupling with the *almasola*, trials by ordeal (*bula morto*, a ritual in which a murder suspect is forced to jump over a dead body), out-of-body experiences, therianthropy (i.e., changing oneself or another person into an animal), telekinesis, spiritistic séances, divination (by looking into a handheld mirror, for example, or into coffee grounds, *mira den koppie*), exorcisms (attempts to bar or destroy a spirit by whipping the person involved or by spitting or blowing rum into their face), working spells (intended to destroy an opponent by piercing or demolishing a photograph, clay doll or flesh doll representing that person), and dispelling deadly curses by sending the spirit involved into a black hen or some other animal (Brenneker, 1971; Rutten, 2003). Also worth mentioning is zombification, a process during which the victim ends up paralyzed and apparently dead after being poisoned with *tetrodotoxin* or some other paralyzing substance, and is then buried alive in a state resembling locked-in syndrome, after which he or she is disinterred and "revived" with the aid of substances deriving from *Solanum* or *Datura* species, to finally live on in a docile and catatonia-like state (Davis, 1983; Rutten, 2003). During the process of zombification, psychoactive substances appear to play a major role. And yet magic spells tend to be given at least equal weight by all involved. Even from a psychopharmacological point of view, it is not clear to what extent the effects of zombification should be attributed to the substances applied. After all, "Voodoo death" in all its variations is now conceptualized chiefly in terms of physiological response mechanisms (such as the acute hormonal stress response) in reaction to a perceived threat rather than to physical contact with a toxic agent (Sternberg, 2002). Moreover, as demonstrated by Littlewood and Douyon (1997) on the basis of DNA tests, some cases of alleged zombification may actually be cases of misidentification in which the "revived" person is actually someone else. Father Paul H. F. Brenneker (1912–1996), a Dutch priest who studied Brua practices (Brenneker,

1961a, 1961b, 1966, 1971), also mentions the use of paraphernalia such as beads, mirrors, coins, pieces of glass, glass powder, camphor, incense, stumps of funeral candles, shells, egg shells, dog's teeth, blood, human and animal bones, and graveyard dirt (the latter objects being obtained by plundering graves, preferably on All Souls' Day and the graves of people who died by suicide). In addition, Brua has a special branch known as scatology, which makes use of excrements such as saliva, feces, urine, and sperm as a defense against spirits or as a means to "transfer" powers.

Discussion

Like many other Caribbean religions and healing practices, Brua constitutes an oral tradition that operates outside officially recognized religious and healthcare institutions. The relatively small number of texts on the subject that we were able to retrieve is in itself testimony to the extent to which Brua has remained outside the annals of recorded history. Given this scarcity of recorded material, it may strike one as remarkable that so many people from Aruba, Bonaire, and Curaçao seem to be acquainted with the tradition, and to have at least some knowledge of its basic principles. On the other hand, the oral transmission of folk beliefs plays an important part in any culture. As suggested by Payne-Jackson and Alleyne (2004), in "traditional" societies such folk beliefs tend to be stronger and more complex than in "modern" societies, and to interfere crucially with the individual's relationship with biomedical services. Hoffer's (2009) estimate that 85% of the inhabitants of Curaçao may be involved to some degree in Brua practices, and Rutten's (2003, p. 59) remark that "the *hacidó di brua* is being consulted throughout all layers of the population, colonial and postcolonial," are in line with the estimate of Méance (2014, p. 78) that on nearby Haiti some 80% of the population "practice some aspects of Vodou regardless of their religion and socioeconomic status." As Haiti has 0.25 physicians per 1,000 inhabitants (NationMaster, 2014) versus 10 Voodoo healers per 1,000 (Cohen, 1997), and taking into account that 80% of the Haitians live below the poverty line, it is reasonable to venture that on the basis of availability and accessibility alone, the majority of medical problems on Haiti would end up being brought to the attention of Voodoo healers. On the more prosperous islands of Aruba, Bonaire, and Curaçao, with 1.4 physicians per 1,000 inhabitants (NationMaster, 2014), and especially in the Netherlands (with 2.9 physicians per 1,000 inhabitants; World Bank, 2014), the popularity of Brua is less easily explained from a numerical and economic perspective. It may be explained, however, from the vantage point of a pluralistic health care system in which Western biomedicine is only one of various therapeutic approaches available to treat illness (Helman, 2007), and given that Brua addresses ailments (including misfortune) that biomedicine cannot resolve.

Brua is often frowned upon and ridiculed in public (Allen, 2012). As long as it has existed, it has been condemned by the Roman Catholic Church and other official institutions (Hoffer, 2012). Like many other Afro-Caribbean religions, it

has been modified, shaped, and curtailed by powers that include those of capital and colonialism, of the state that legitimizes some practices and criminalizes others, and of scholars and artists who misrepresent the tradition (Paton & Forde, 2012). Yet Brua has managed to survive some 350 years of repression and become part of the lives of many people, including the descendants of former slaves, but also a substantial number of people for whom slavery is not a part of their family history. It may be tempting to attribute the tradition's popularity to its use of potent pharmacological agents—which are undoubtedly responsible for the effectiveness of some of its remedies—but considering the wide range of Brua practices, as well as the depth of its cosmology, it would be mere speculation to put so much emphasis on psychopharmacology alone. On the contrary, the undiminished popularity of Brua in the face of easily accessible Western-oriented health care would seem to indicate that it is valued as something more than just “the poor man's alternative” to Western medicine.

As with other Caribbean religions and healing traditions (Hickling, Gibson, & Hutchinson, 2013), it is impossible to explain the unabating popularity of Brua without recognizing the complexity of the historical experiences of the people from the ABC Islands. One thread in that complex fabric is the management of anger and aggression by former slaves and their descendants. In light of everything that African slaves had to endure in the Caribbean, they had every reason to feel anger and aggression. Brua may embody a sort of wish fulfillment for those who want to be capable of influencing situations from a distance. Perhaps this is what lends Brua its almost irresistible attraction, that is, the wish to exert power over forces that determine physical, mental, social, and material well-being (which one hopes to attain through magic), and the wish to be capable of meting out aggression without being noticed (with the aid of sorcery). On the ABC Islands the fulfillment of both of these needs has traditionally been in the hands of the *kurioso*, who is considered capable of causing effects that cannot be traced to their cause by any rational means. Thus, Brua seems to allow a form of control over uncontrollable circumstances, responding to a desire found among many people across many cultures, which is perhaps equally applicable to other accounts of religion and magic—as well as science.

A second historical mainspring may have been the threat the islands' former slaves and their descendants faced of losing their social, cultural, and religious identity. Subjugated, dispersed, geographically disoriented, and indoctrinated in foreign values and beliefs, the preservation of their own values and beliefs was of vital importance to these individuals. Like elsewhere throughout the Caribbean, and in parts of the South American mainland, where more or less similar syncretisms arose, Brua was a unique way to retain those values and beliefs by merging them with elements borrowed from the Arawaks and Europeans on the ABC Islands in such a way that vital African elements were preserved. Thus, familiar cultural and healing practices were transferred to the Caribbean and used to forge a new cultural identity that incorporated the old and the new in an ongoing exchange of values, practices, and beliefs. The *Aruba Heritage Report*

(Alofs, 2008), written to reflect and advance the island's intangible cultural heritage, is testimony to the fact that the search for a cultural identity on the islands is far from over.

Finally, Brua appears to have arisen as a response to the limited medical care to which slaves were entitled. Due to their minimalistic housing and the harsh working conditions in a tropical climate, as well as the unwillingness of the European colonizers to share much of the scarce and costly medical resources on the islands, the newly arrived Africans were exposed to the full force of indigenous as well as European diseases. Alternatives based on natural cures and magico-religious practices already known to them were developed out of necessity. Aided perhaps by priests, magicians, and healers who were among the captured Africans, and who may have retained their status as shamans among their peers in the New World, a certain continuity was provided with African medical traditions (Voeks, 1993). In addition, inspiration was found in Amerindian healing systems such as those of the Arawaks. Although the history of those original inhabitants of the ABC Islands has been documented only fragmentarily (Boerstra, 1982), it is known that the knowledge and application of medicinal plants by Indians during the pre-Columbian era was in no way inferior to that of their European contemporaries (Verano, 1999). It is likely that this knowledge found its way into the therapeutic arsenal of the *kurioso*, who only began to experience competition from biomedically trained physicians around the beginning of the 20th century. In 1905, for example, Horacio Eulogio Oduber (1862–1935) was the first “native” physician for Aruba's then 9,000 inhabitants, who until then had sought the aid of the *kurioso* for all their ailments, and who continued to do so quite faithfully after the arrival of this medical pioneer.

Brua and psychiatry

In the privacy of the consulting room, individuals from Aruba, Bonaire, and Curaçao may occasionally drop hints that express their fear of being the victim of Brua practices. Like patient A, they may do so while describing their insomnia, fatigue, anxiety, depression, or in fact any other fairly general complaint. To mental health practitioners without a proper knowledge of their patients' cultural or religious idioms, these hints may go unnoticed or be misjudged, and the patient may be misdiagnosed as suffering from psychosis or some other psychiatric disorder (see also Hickling & Paisley, 2012). People who attribute their complaints to Brua may also be reluctant to consult a mental health professional at all, for the simple reason that they do not consider their problem to be medical in nature. For example, Jessurun and Raes (2005) describe the case of a Curaçaoan male who said that he had suffered for the past 5 years from “a bad energy” or “spirit” which he thought had entered his back, and then risen upwards to his throat. Only after employing a culture-sensitive approach did it become clear that the patient attributed his complaints to Brua, and that, as a

consequence, it had never crossed his mind to consult a physician. He was diagnosed with psychotic disorder and treated with olanzapine, to good effect. In addition, he was encouraged—in accordance with his own wish—to try faith healing with a priest.

In our psychiatric hospital in The Hague, we likewise encounter patients from the ABC Islands who present with (what we consider to be) psychiatric symptoms, and who initially merely hint at Brua as a possible cause of their problems, without using the term explicitly, and without indicating that they are looking for an explanation beyond the boundaries of the biomedical discourse (Minkenberg & Blom, 2015). They sometimes refer to the significance of certain odours, the possibility of being poisoned, or inexplicable happenings in their homes such as the breaking of a mirror, the presence of white powder on the floor, or the toppling over of a waste bin. Or they may speak of “bad air” (*mal airu*), of anonymous people wishing them harm, or of indistinct “higher powers” being at play. Like Mr. A, they may also stress their faith in the God of Christianity, without explaining the importance of that faith in the light of the Brua practices which they fear have ensnared them. It is noteworthy that the Papiamentu adjective *bruá* means “confused” (Mensinga, 1994), thus indicating that even at a linguistic level an association is made between being mentally ill and being a victim of Brua. When asked carefully and respectfully about their opinion on the possibility of Brua practices being at play, the majority of patients confirm that they have heard about the tradition, but add that their families or they themselves would never partake in such unchristian practices. Some of them even deny grasping the meaning of the term “Brua.” The mental health professional must display patience and perseverance to investigate whether they believe in Brua. It is important to address the different components or dimensions of cultural identity and experiences that constitute local worlds (Kirmayer & Ban, 2013). It may be helpful to carry out a systematic assessment of the patient’s cultural values with the aid of a field-tested diagnostic tool such as the *Cultural Formulation Interview* (American Psychiatric Association [APA], 2013; Lewis-Fernández et al., 2014). Patients may then come up with a detailed idiom of distress with references to the evil eye, sorcery, crab antics, and many other elements from the Brua discourse. It is not unusual at this stage to learn that patients’ complaints have a much longer history than originally suggested, that they have been given advice by family members, friends, and neighbours, and that they have tried out various countermeasures with or without the aid of a *kurioso*. It may also turn out that the substances they tried in search of a cure have become part of their presenting problem. Nutmeg, for example, which was mentioned above as an alleged remedy against epilepsy, is—when ingested in larger quantities—known for various toxic effects such as tachycardia; flushing; nausea; vomiting; sedation; delusions; lively dreams; body schema illusions; and visual, auditory, tactile, as well as kinesthetic hallucinations (Kelly, Gavin, Clarke, Lane, & Larkin, 2003). As noted by Rutten (2003), botanical hallucinogens have always played a significant role in Brua practices, and hence it is not

uncommon for individuals from the ABC Islands who experience perceptual aberrations due to those substances to attribute them to Brua. The mental health professional needs to be aware of the attributional style of patients from the ABC Islands who seek his or her help as well as of the pharmacological agents they may use in search of a cure for their complaints, both of which may significantly influence patients' illness experience and idioms of distress.

Limitations

The current review is based almost exclusively on the published literature, which is limited and mainly written from the vantage point of Dutch and Dutch-Antillean professionals, and which is purely descriptive and in many places impressionistic in nature. Moreover, the earlier texts may not fit with more contemporary accounts, or with the way in which Brua is practiced today. There is a need for more systematic research to understand Brua in current social and cultural contexts of life on the ABC islands and abroad.

Conclusions

On the basis of the literature, the unwavering popularity of Brua among individuals originating from Aruba, Bonaire, and Curaçao can be understood at least partly from the vantage point of their own history, most importantly, that of the people of African descent. And yet the major appeal of this collection of creolized healing traditions may well be the profoundly holistic worldview it advocates. Starting from the premise that everything in the universe has one living source, and that the world is animated by spirits, deities, and demons, Brua provides a worldview that in many ways competes with contemporary biomedicine. Perhaps most importantly, it offers a way to explain illness and disease in terms of a disequilibrium of physical, mental, social, and spiritual elements in the universe, and recognizes the interconnectedness of those elements in a way that goes beyond the bio-psycho-social model of present-day biomedicine. While responsible for some of the allure of Brua, this holistic approach is also responsible for generating tension between Brua practices and Western-oriented, biomedical practices. There are no field studies available detailing the number of consultations individuals from the ABC islands pursue with Brua practitioners versus biomedically trained mental health professionals, but on the basis of the literature, and in conformity with Khoury, Kaiser, Keys, Brewster, and Kohrt's observations (2012), there seems to be little or no patient delay when it comes to problems traditionally considered to fall within the physician's domain, especially when those problems are serious in nature and/or known to be treatable by biomedical practitioners. In all other cases, whether relatively simple medical problems, nonmedical problems, or medical problems unamenable to the methods of modern-day biomedicine are concerned, there appears to be a preference among people from the ABC Islands for consultation with a *kurioso*.

From the vantage point of biomedically trained mental health professionals who are consulted by individuals from the ABC Islands—whether on the islands themselves or abroad—it would seem to be paramount to be receptive to the patients' culturally sanctioned idioms of distress (see also Despinoy & Camelio, 1967; James, Carpenter, Peltzer, & Weaver, 2013) and aware of the fear of Brua practices that may color their request for help. Professionals must also be aware of the hallucinogenic and other toxic substances which patients may have used in search of a cure, which can produce comorbid symptoms that profoundly alter the clinical picture, as well as the possible use of illicit drugs, which are readily available on the islands. To establish an effective physician–patient relationship, we advise clinicians to become well-informed about the tradition of Brua and to approach patients from the ABC Islands with an open attitude that considers the possible impact of their involvement with Brua. Perhaps the best way to achieve this knowledge is by establishing working alliances between biomedically trained mental health professionals and Brua experts. In addition, the present review underscores the need for systematic historical and medical-anthropological research into Brua and its intersection with psychiatry.

Funding

This research received no grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

- Allen, R. M. (1989). Brua als geneesmiddel. Ziek-zijn binnen de Curaçaoase cultuur [Brua as remedy. Being ill in Curaçaoan culture]. *Plataforma*, 6, 25–28.
- Allen, R. M. (Ed.). (1990). *Op de Bres voor Eigenheid. Afhankelijkheid en Dominantie in de Antillen* [On the barricades for individual characteristics. Dependence and dominance in the Antilles]. Amsterdam, the Netherlands: Caraïbische Werkgroep AWIC, University of Amsterdam.
- Allen, R. M. (2007). *Di Ki Manera? A social history of Afro-Curaçaoans, 1863–1917* (Thesis). University of Utrecht, the Netherlands.
- Allen, R. M. (2010). Hende a hasi malu p'e. Popular beliefs in Curaçaoan culture. In N. Faraclas, R. Severing, C. Weijer, & L. Echteld (Eds.), *Crossing shifting boundaries. Language and changing political status in Aruba, Bonaire and Curaçao* (pp. 221–229). Willemstad, Curaçao: Fundashon pa Planifikashon di Idioma, University of the Netherlands Antilles.
- Allen, R. M. (2012). Volksgeloof en hulpverlening in de Curaçaoase cultuur [Folk belief and aid in Curaçaoan culture]. In R. Cicilia (Ed.), *De Krabbenmand Omvergegooid* (pp. 39–46). Tilburg, the Netherlands: De ParelReeks.
- Alofs, L. (2008). *The Aruba heritage report. Aruba's intangible cultural heritage, an inventory*. Oranjestad, Aruba: Aruba National Commission for UNESCO.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders. Fifth edition*. Washington, DC: American Psychiatric Association.
- Ansano, R. (1990). Balia ku almasola or dance with the lone soul. Social transformations and symbolic representations in Afro-Curaçaoan religions. In R. M. Allen (Ed.), *Op de*

- Bres voor Eigenheid. Afhankelijkheid en Dominantie in de Antillen* (pp. 165–189). Amsterdam, the Netherlands: Caraïbische Werkgroep AWIC, University of Amsterdam.
- Bell, H. J. (1889). *Obeah. Witchcraft in the West Indies*. London, UK: Sampson Low Marston.
- Bernadina, F. M. (1981). *Montamentoe. Een beschrijvende en analyserende studie van een Afro-Amerikaanse godsdienst op Curaçao* (Doctoral thesis). University of Amsterdam, the Netherlands. books.google.com/books/about/Montamentoe.html?id=QjKpGwAACAAJ
- Blom, J. D. (2010). *A dictionary of hallucinations*. New York, NY: Springer.
- Blom, J. D., Poulina, I. T., & van Gellecum, T. L. (2013). Psychiatrie en Brua [Psychiatry and Brua]. *Tijdschrift voor Psychiatrie*, 55, 609–618.
- Boerstra, E. H. (1982). *De Precolumbiaanse bewoners van Curaçao, Aruba en Bonaire [The Pre-Columbian inhabitants of Curaçao, Aruba, and Bonaire]*. Zutphen, the Netherlands: De Walburg Pers.
- Brenneker, P. (1961a). *Curaçaoensia. Folkloristische aantekeningen over Curaçao [Curaçaoensia. Folkloristic notes on Curaçao]*. Willemstad, Curaçao: St. Augustinus.
- Brenneker, P. (1961b). *Jerba. Kruiden van Curaçao en hun gebruik [Jerba. Herbs from Curaçao and their utilization]*. Willemstad, Curaçao: St. Augustinus.
- Brenneker, P. (1966). *Brua*. Willemstad, Curaçao: s.n.
- Brenneker, P. (1971). Brua. In P. Brenneker (Ed.), *Sambumbu 3. Volkskunde van Curaçao, Aruba en Bonaire* (pp. 668–700). Willemstad, Curaçao: Paul Brenneker.
- Centraal Bureau voor de Statistiek. (2013). *Bevolking; generatie, geslacht, leeftijd en herkomstgroepering*. Retrieved from <http://www.cbs.nl/nl-NL/menu/themas/bevolking/nieuws/default.htm>
- Cicilia, R. (Ed.). (2012). *De krabbenmand omvergegooid [The crab bucket knocked over]*. Tilburg, the Netherlands: De ParelReeks.
- Cohen, R. (1997). *Global diasporas: An introduction*. Washington, DC: University of Washington Press.
- Davis, E. W. (1983). The ethnobiology of the Haitian zombi. *Journal of Ethnopharmacology*, 9, 85–104.
- Debbasch, Y. (1963). Le crime d'empoisonnement aux îles pendant la période esclavagiste [The crime of poisoning on the islands during the era of slave-trading]. *Revue Française d'Histoire d'Outre-mer*, 51, 137–188.
- De Haseth, L. (1983). *Remedi ku ta Juda Sapaté, no ta Juda Sneiru [The remedy that helps the shoe maker does not help the taylor]* (Doctoral thesis). University of Leiden, the Netherlands.
- Despinoy, M., & Camelio, A. (1967). La psychopathologie aux Antilles et ses relations avec les structures sociales [Psychopathology on the Antilles and its relations with social structures]. *Tropical Problems in Psychiatry and Neurology*, 5, 272–301.
- Evers, J. C. (1986). *Volksgeneeskunst op de Benedenwindse Eilanden van de Nederlandse Antillen [Folk medicine on the Leeward Islands of the Netherlands Antilles]* (Doctoral thesis). University of Leiden, the Netherlands.
- Evers, J. C. (1990). *Volksgeneeskunst op Aruba [Folk medicine on Aruba]*. Leiden, the Netherlands: CA-SNWS.
- Garmers, S., & Lim, H. (1967). *Brua pa Tur Dia [Brua for everyday use]*. Willemstad, Curaçao: s.n.
- Garmers, S., & Lim, H. (1975). *Brueria di henter mundo. Magie uit alle landen [Magic from all over the world]*. Willemstad, Curaçao: St. Augustinus.

- Geschiere, P. (1995). *Sorcellerie et Politique en Afrique – La Viande des Autres* [Sorcery and politics in Africa – The flesh of others]. Paris, France: Éditions Karthala.
- Grupo Uni Noord. (2011). *Remedinan di Tera* [Therapeutics of the earth]. Oranjestad, Aruba: Unoca.
- Helman, C. G. (2007). *Culture, health and illness. Fifth edition*. London, UK: Hodder Arnold.
- Hickling, F. W., Gibson, R. C., & Hutchinson, G. (2013). Current research on transcultural psychiatry in the Anglophone Caribbean: Epistemological, public policy, and epidemiological challenges. *Transcultural Psychiatry*, 50, 858–875.
- Hickling, F. W., & Paisley, V. (2012). Issues of clinical and cultural competence in Caribbean migrants. *Transcultural Psychiatry*, 49, 223–244.
- Hoffer, C. (2009). Brua-geneeswijzen [Brua medicines]. In C. Hoffer (Ed.), *Psychische ziekten en problemen onder Allochtone Nederlanders: Beleving en Hulpzoekgedrag* (pp. 142–146). Assen, the Netherlands: Van Gorcum.
- Hoffer, C. (2012). Pleidooi voor een belevingsgerichte benadering in de zorg: winti en brua als voorbeelden. In R. Cicilia (Ed.), *De Krabbenmand Omvergegooid* (pp. 47–60). Tilburg, the Netherlands: De ParelReeks.
- James, C. C., Carpenter, K. A., Peltzer, K., & Weaver, S. (2013). Valuing psychiatric patients' stories: Belief in and use of the supernatural in the Jamaican psychiatric setting. *Transcultural Psychiatry*. Advance online publication.
- Jansen, A. L. J. M. (1910). *Un Mal Spiritu. Lectura Christiana Nr. 1* [A bad spirit. Christian Lectures No. 1]. Willemstad, Curaçao: Apostolisch Vicariaat.
- Jessurun, A. Y., & Raes, B. C. M. (2005). Een Antilliaanse psychose? Behandeling van een psychose die door de patiënt wordt geduid als zwarte magie [Antillean psychosis? Treatment of psychosis, interpreted by the patient as black magic]. *Tijdschrift voor Psychiatrie*, 47, 807–811.
- Jordaan, H. (2013). *Slavernij & vrijheid op Curaçao. De dynamiek van een achttiende-eeuws Atlantisch handelsknooppunt* [Slavery and freedom on Curaçao. The dynamics of an eighteenth-century Atlantic trading hub]. Zutphen, the Netherlands: Walburg Pers.
- Kelly, B. D., Gavin, B. E., Clarke, M., Lane, A., & Larkin, C. (2003). Nutmeg and psychosis. *Schizophrenia Research*, 60, 95–96.
- Khoury, N. M., Kaiser, B. N., Keys, H. M., Brewster, A.-R. T., & Kohrt, B. A. (2012). Explanatory models and mental health treatment: Is vodou an obstacle to psychiatric treatment in rural Haiti? *Culture, Medicine and Psychiatry*, 36, 514–534.
- Kirmayer, L. J., & Ban, L. (2013). Cultural psychiatry: Research strategies and future directions. *Advances in Psychosomatic Medicine*, 33, 97–114.
- Latour, M. D. (1949). Voodoo op Curaçao [Voodoo on Curaçao]. *Indisch Missie Tijdschrift*, 32, 19–21.
- Lauffer, P. A. (1975). *Zumbi, spiritu, almasola* [Zombie, spirit, devil]. Willemstad, Curaçao: Van Dorp.
- Lewis-Fernández, R., Aggarwal, N. K., Bäärnhielm, S., Rohlof, H., Kirmayer, L. J., Weiss, M. G., . . . Lu, F. (2014). Culture and psychiatric evaluation: Operationalizing cultural formulation for DSM-5. *Psychiatry*, 77, 130–154.
- Littlewood, R., & Douyon, C. (1997). Clinical findings in three cases of zombification. *Lancet*, 350, 1094–1096.
- Marks, A. F. (1971). Enkele oud-curaçaoose geloofsels en gebruiken rond ziekte en dood [Some old-Curaçaoan beliefs and customs regarding illness and death]. *Maandblad Oost en West*, 64, 1–7.

- Méance, G. (2014). Vodou healing and psychotherapy. In P. Sutherland, R. Moodley, & B. Chevannes (Eds.), *Caribbean healing traditions. Implications for health and mental health* (pp. 78–88). London, UK: Routledge Taylor & Francis Group.
- Mensinga, M. (1994). *'Ik Geloof Er Niet in Maar het Bestaat Wel.'* Een Discrepantie Tussen de Westers Psychiatrische Visie en de Volksreligie bij Hulpverleners van de dr. D.R. Caprileskliniek op Curaçao (Doctoral thesis). The Free University, Amsterdam, the Netherlands.
- Mensinga, M. C. M., & Gernaat, H. B. P. E. (1996). Geloven in Brua [Belief in Brua]. *Maandblad Geestelijke Volksgezondheid*, 51, 423–425.
- Minkenbergh, E. H. M., & Blom, J. D. (2015). Brua als verklaringmodel voor ziekten [Brua as an explanatory model for diseases]. *Tijdschrift voor Psychiatrie*, 57, 367–370.
- Murrell, N. S. (2014). Obeah. Afro-Caribbean religious medicine art and healing. In P. Sutherland, R. Moodley, & B. Chevannes (Eds.), *Caribbean healing traditions. Implications for health and mental health* (pp. 65–77). London, UK: Routledge Taylor & Francis Group.
- NationMaster. (2014). *Health > Physicians > Per 1,000 people: Countries compared*. Retrieved from http://www.nationmaster.com/graph/hea_phy_per_1000_peo-physicians-per-1-000-people
- Paton, D., & Forde, M. (Eds.), (2012). *Obeah and other powers: The Politics of Caribbean religion and healing*. Durham, NC: Duke University Press.
- Payne-Jackson, A., & Alleyne, M. C. (2004). *Jamaican folk medicine: A source of healing*. Kingston, Jamaica: University of West Indies Press.
- Postma, J. M. (2008). *The Dutch in the Atlantic slave trade 1600–1815*. Cambridge, UK: Cambridge University Press.
- Rätsch, C. (2005). *The encyclopedia of psychoactive plants. Ethnopharmacology and its applications*. Rochester, VT: Park Street Press.
- Rutten, A. M. G. (2003). *Magische kruiden in de Antilliaanse folklore. Etnofarmacologie van het Caribisch Gebied [Magical herbs in Antillean folklore. Ethnopharmacology of the Caribbean]*. Rotterdam, the Netherlands: Erasmus.
- Sereno, R. (1948). Obeah. Magic and social structure in the Lesser Antilles. *Psychiatry*, 11, 15–31.
- Sternberg, E. M. (2002). Walter B. Cannon and “voodoo’ death”: A perspective from 60 years on. *American Journal of Public Health*, 92, 1564–1566.
- Streefkerk, C. (1977). Godsdienstige gebruiken en opvattingen [Religious practices and beliefs]. In R. A. Römer (Ed.), *Cultureel Mozaïek van de Nederlandse Antillen. Varianten en Constanten* (pp. 43–55). Zutphen, the Netherlands: De Walburg Pers.
- Sutherland, P., Moodley, R., & Chevannes, B. (Eds.), (2014). *Caribbean healing traditions. Implications for health and mental health*. London, UK: Routledge Taylor & Francis Group.
- Theloosen, E. (2012). Interview Rose Mary Allen. De relatie tussen het volksgeloof en het krabbenmandgedrag [The relation between folk belief and crab antics]. In R. Cicilia (Ed.), *De Krabbenmand Omvergegooid* (pp. 36–38). Tilburg, the Netherlands: De ParelReeks.
- Thomas, G. (1998). Psychiatrie en brua. In A. Limburg-Okken, R. May, & E. van Meekeren (Eds.), *Symposiumverslag 'Culturen Binnen Psychiatrie-muren, deel VI'* (pp. 62–64). Oegstgeest, the Netherlands: APZ Endegeest.
- Van Capelle, H. (1926). *Mythen en sagen uit West-Indië [Myths and sagas from the West Indies]*. Zutphen, the Netherlands: Thieme.

- Van der Velden, B. D. (2011). *Ik Lach met Grotius, en alle die prullen van boeken. Een rechtsgeschiedenis van Curaçao [I am laughing with Grotius, and all those rubbish books. A legal history of Curaçao]*. Amsterdam, the Netherlands: SWP.
- Van Reeth, Z. E. P. (1937). *Hekserij in de missielanden [Witchcraft in the mission countries]*. Brussels, Belgium: Universum.
- Van Rijn, A. B. (1991). *Mijn Geest is sterker dan Brua. Opvattingen over oorzaken en oplossingen van psychosociale en psychiatrische problemen bij antillianen en arubanen in Nederland* (Master's thesis), s.n.
- Veeris, D. (2010a). *Van Amandel tot Zjozjoli. De geneeskrachtige werking en historische achtergronden van kruiden van de Nederlandse Antillen en Aruba [Almond to Zjozjoli. The therapeutic effects and historical antecedents of herbs from the Netherlands Antilles and Aruba]* (4th ed.). Rotterdam, the Netherlands: Synthese.
- Veeris, D. (2010b). "Afrikantje" en 99 andere kruiden ["African Marigold" and 99 other herbs] (2nd ed.). Rotterdam, the Netherlands: Synthese.
- Verano, J. W. (1999). Health and medical practices in the pre-Columbian Americas. *Perspectives in Health*, 4, 9–12.
- Voeks, R. (1993). African medicines and magic in the Americas. *Geographical Review*, 83, 66–78.
- Wallerstein, I. (1974). *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century*. New York, NY: Academic Press.
- Williams, C. (1988). Asante: Human sacrifice or capital punishment? An assessment of the period 1807–1874. *International Journal of African Historical Studies*, 21, 433–441.
- Wilson, P. J. (1995). *Crab antics: A Caribbean study of the conflict between reputation and respectability*. Long Grove, IL: Waveland Press.
- Witteveen, I., & Harms, B. (2009). *Altá i santunan di Kórsou [Altars and saints of Curaçao]*. Willemstad, Curaçao: National Archaeological Anthropological Memory Management.
- World Bank. (2014). *Physicians (per 1,000 people)*. Retrieved from <http://data.worldbank.org/indicator/SH.MED.PHYS.ZS>.

Jan Dirk Blom, MD, PhD, is the head of the Outpatient Clinic for Uncommon Psychiatric Syndromes and Deputy Director of the Psychiatric Residency Training Programme at Parnassia Psychiatric Institute, The Hague, the Netherlands. He is also an assistant professor of psychiatry at the University of Groningen, the Netherlands. His published works focus on hallucinations and other psychotic symptoms.

Igmar T. Poulina, MD, is a psychiatry resident at Parnassia Psychiatric Institute in The Hague, the Netherlands. As part of his training programme he is involved in an empirical study of movement disorders among psychotic patients on Curaçao, as well as in a field study on psychiatry and Brua.

Trevor L. van Gellecum, MD, is a freelance psychiatrist working in The Hague, the Netherlands. He specializes in forensic psychiatry. He is also a former member of the Directorate of Public Health Aruba, and the former director of *Instituto Medico San Nicolas* (IMSAN) on Aruba.

Hans Wijbrand Hoek, MD, PhD, is a professor of psychiatry at the University of Groningen, the Netherlands; adjunct professor of epidemiology at Columbia University, New York, NY; and Director of the Psychiatric Residency Training Programme at Parnassia Psychiatric Institute, The Hague, the Netherlands. His published works focus on the epidemiology of psychotic disorders and eating disorders.