REVIEW

Governmental and non-governmental programming for the implementation of Mental Health Services in Niger: narrative review of the literature and perspectives for an integrated project for mental health in developmental age.

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Abstract – Mental health in Niger is a major public health problem, like other health problems, but it often receives less attention despite having a significant impact on both subjective and social levels in the general population. As in other African countries, it is characterized by limited access to care, stigma and discrimination, psychopathology of conflicts and migration, poverty and high medical comorbidities, lack of training and availability of specialized health personnel, lack of resources and discontinuity of mental health programs and projects. In a country where almost half of the inhabitants are under the age of fifteen, the most serious deficiencies in the field of mental health concern the developmental age. Historically, the absence of a child neuropsychiatry department throughout the country, and the presence of outpatient services that are severely lacking for both adulthood and development, have made it necessary to adopt integrated local and international, governmental and non-governmental (NGO) health policies in order to plan an implementation of care and assistance offers in the psychiatric field focused on models inspired by the most recent guidelines based on the most recent guidelines based on the on the evidence.

Keywords: mental health, Niger, access to psychiatric care, human rights

Key messages:

- Violence and conflict within the country contribute to the genesis of trauma and psychological stress in the population;
- Implementing psychosocial support programs would make it possible to provide assistance in dealing with trauma and stress in the Nigerien population.

Introduction

The Republic of Niger is a large landlocked country in West Africa. About 80% of its vast area (1,300,000 km^2) is in the Sahara Desert and is bordered by Mali, Algeria, Libya and Chad to the north, and Nigeria, Benin and Burkina Faso to the south. In the 1890s, the country came under French rule and gained independence in 1960, but its development has been slowed down over the years by political instability, lack of natural resources, and drought. In 1999, voters overwhelmingly approved a new constitution, allowing for multi-party elections that ended with the election of President Mamadou Tandja. Although his mandate was marked by controversy, in 2009, Tandja tried to extend it through a referendum, but it was declared uncon-

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stitutional by the Constitutional Court of Niger. This was followed by the military coup d'état of February 2010, in which, after the deposition of Tandja, a military junta took control, suspending the constitution and dissolving state institutions. In 2011, Mahamadou Issoufou was elected president in democratic elections. During his tenure, Niger faced significant challenges, including attacks from extremist groups such as Boko Haram and Al-Qaeda in the Islamic Maghreb. Despite the difficulties, Issoufou managed to maintain a certain political stability and promote some economic and social reforms. He was re-elected in 2016, continuing his second term until 2021. In the same year, Mohamed Bazoum won the presidential election, marking the first democratic transition of power in Niger's history. However, his government faced serious challenges related to the country's internal security and political stability. In July 2023, Bazoum was deposed by a military coup, with the coup plotters justifying their actions by citing security concerns and dissatisfaction with the country's government management. The 2023 coup has further complicated the political and security situation in Niger. The international community, including the United States and ECOWAS, condemned the coup and called for the restoration of constitutional order. The neighboring countries Burkina Faso and Mali, on the other hand, immediately supported the new government, supporting the coup plotters. After the withdrawal of French troops in the months following the *coup*, the situation currently remains tense and uncertain, with the country facing a difficult transition still in need of reconciliation and stability. Niger's recent history, characterized by political instability, poor internal security and multiple external interferences, is still affected by the heterogeneity of the communities residing in the country and the complexity of its cultural and social characteristics. There is, in fact, a great diversity of populations, including nomadic tribes in the north (the Tuareg and the Fulani) and settled groups mainly in the south (the Hausa, the Zarma and the Songhai, among many others). Most of the population is Muslim, but animist beliefs and ancestor worship are common. Niger is one of the poorest countries in the world, with a gross national income of US$581 per capita in 2022 (1). The population is estimated at 27.2 million and just under half are under 15 years old (2). Most are subsistence farmers, and more than 60% of people live on less than 1 US dollar a day. Most of the national export income comes from uranium mining and cattle ranching.

Health indicators for Niger are poor. The average life expectancy at birth is 58 years for men and 56 years for women. In 2023, the fertility rate was estimated at 6.73 children per woman (3). This represents one of the highest fertility rates in the world, reflecting significant population growth in the country, even though the infant mortality rate in Niger is around 40.4 deaths per 1,000 live births in 2023 (4). Total health spending as a percentage of gross domestic product remained rather stable in the years between 2010 and 2020 at around 5%. Total health expenditure per capita in the year 2022 was around 29 US dollars (5). There are multiple public health problems in Niger that significantly impact life expectancy and quality of life of the general population. Malnutrition is one of the most serious problems, particularly among children under five. Food shortages and poor nutritional quality of diets contribute to high rates of acute and chronic malnutrition. Among the infectious diseases we remember malaria which is endemic making Niger the fifth country in the world for prevalence and representing one of the main causes of mortality (6), bacterial meningitis, being the country located in the African «meningitis belt» where epidemics are frequent also due to low vaccination coverage, and AIDS which, Although HIV infection rates are lower than in other regions of sub-Saharan Africa, it remains a significant public health problem. These problems, accompanied by limited access to health services, poor hygiene and availability of drinking water, precarious living conditions, conflicts and internal displacements, for the purposes of this work, are to be considered factors that also have an impact on mental health (7).

Materials and Methods

A narrative review of the literature was conducted as a synthesis method aimed at providing a panoramic view of mental health in Niger. The revision was carried out by consulting the *PubMed databases* by entering the following terms in the *Advanced Search Builder*: «Mental health» AND «Niger». Articles in French and English since 1980 have been included in the research. In presenting the results of the research, the PICO (*Problem/Population, Intervention, Comparison, Outcome) model was used,* which allows to report and analyze, in a structured way, the studies related to the topic under consideration.

Results

Of the 127 results obtained, 11 articles were selected, relating to mental health

issues concerning Niger, listed in ***Tab. 1***. Using the PICO method, we first defined the problem of interest in this *review*, namely that of mental health in Niger, which represents a significant public health problem, often less attention than other organic health problems, but which nevertheless has a profound impact both on an individual and social level in the general population. There are numerous and multi-component aspects of the mental health problem in Niger, and equally complex have been the attempts at intervention carried out from the 90s to the present day. The comparison between the various intervention policies described in the literature and the programs currently active appears useful to define and orient the *outcomes* for an implementation of psychiatric care in the country.

The epidemiology of mental disorders in Niger is characterized by an almost total absence of systematically collected data (8). Some ethnographic research was conducted in the 1970s and 1980s (9). There are no epidemiological studies of incidence or prevalence about neuropsychiatric diseases in Niger, although a recent review of the literature has identified epilepsy and migraine as the two main causes of referral to specialist advice (10). To date, only two studies have been published in hospitals, which report an estimated average hospital prevalence of epilepsy of 24.2%, which

Tab. 1 - Results of articles according to the PICO model.

Author	***Article title***	***Source***
Osouf, P. et al.	*Regard sur l'assistance psychiatrique au Niger.*	Psychopathologie Africaine, 1980. **16**: p. 249-279
Assadeck, H., et al.	*Clinical and etiological characteristics of epilepsy in people from Niger: a hospital-based study from a tertiary care referral center of Niamey, Niger.*	Epilepsia Open, 2019. **4**(2): p. 318-327
Toudou-Daouda, M. and A.K. Ibrahim-Mamadou	*Clinical and etiological profile of epilepsy at the regional hospital center of Tahoua (Niger): A 4-year retrospective study.*	Brain Behav, 2021. **11**(8): p. E2301
Eaton, J., D.D. Maiga, and S. Pate	*Mental health services in the Republic of Niger.*	Int Psychiatry, 2009. **6**(3): p. 63-64
Hwong, A., et al.	*Scaling up mental healthcare in the Republic of Niger: priorities for and barriers to service improvement.*	British Journal of Psychiatry International, 2015. **12**: p. 6-9
Makanjuola, A.B.	*A cost comparison of traditional and orthodox mental health care.*	Niger Postgrad Med J, 2003. **10**(3): p. 157-61
Maiga, D.D. and J. Eaton	*A survey of the mental healthcare systems in five Francophone countries in West Africa: Benin, Burkina Faso, Cote d'Ivoire, Niger and Togo.*	Int Psychiatry, 2014. **11**(3): p. 69-72
Assadeck, H., et al.	*Knowledge, Attitudes, and Practices with Respect to Epilepsy among Nurses in the City of Niamey, Niger.*	J Neurosci Rural Pract, 2020. **11**(3): p. 454-458
Hailu, B.A., G. Ketema, and J. Beyene	*Mapping of mothers' suffering and child mortality in Sub-Saharan Africa*	Ski Rep, 2021. **11**(1): p. 19544
Assadeck, H., et al..	*Knowledge, attitudes, and practices with respect to epilepsy among primary and secondary school teachers in the city of Niamey, Niger.*	Brain Behav, 2020. **10**(3): p. E01539
Marquer, C., R.F. Grais, and M.R. Moro	*Maternal perception of emotional difficulties of preschool children in rural Niger.*	Transcult Psychiatry, 2016. **53**(3): p. 330-46

mainly affects patients under 18 years of age (about 55% of cases) and males (about 60% of hospitalized patients) (11, 12). Other data from the World Health Organization (WHO) report an age-standardized suicide rate of 10.2 per 100,000 inhabitants, and an annual prevalence of treatment of psychotic disorders of 1516 (about 53% of whom are women) (13). Epilepsy, psychotic disorders and other psychiatric disorders are a major public health problem associated with strong social stigma and discrimination, particularly in the school environment, but in general in all communities. These morbid conditions, in fact, are frequently considered demonic possession or contagious diseases. Traditional medicine, in fact, is the only option available to most of the population when they encounter mental health or neurological problems, as there are few modern facilities outside of the capital, Niamey. Widely held beliefs that mental illness has a spiritual cause, low literacy levels, enormous distances, and poverty are all factors that exacerbate difficult access to psychiatric services (14). Traditional healers generally use medicinal herbs, animal sacrifices, or spells as a remedy for psychiatric disorders (15). The use of such practices is so widespread in local communities that it is preferred to medical psychiatric care despite its low effectiveness and generally higher costs (16). In some recent investigations on family members and epileptic patients, contact with the place where the loss of consciousness secondary to the seizure had occurred, or with the saliva and urine of the patients themselves, have been reported as presumed modes of contagion (17). Erroneous beliefs have also been reported among health professionals (nursing or paramedical staff), i.e. incurability and transmissibility of these morbid conditions (18). Another study with primary care health workers identified as intervention priorities to improve mental health services, raise community awareness, and build relationships and training with traditional caregivers (15). There are no specialized psychiatric hospitals in the country, but in the nine hospitals, three national and six regionals, there is both a psychiatric department for each hospital and services dedicated to outpatients. Psychiatric wards in hospitals outside the capital are run by nurses, and few district hospitals have a psychiatric nurse practitioner. Psychiatric wards do not guarantee adequate facilities to minimum standards of both care and treatment. In fact, since the availability of commonly used health devices or psychotropic drugs is not guaranteed, it is frequent that the costs of hospitalization and psychopharmacological therapies are borne by patients and/or family members. As of 2020, the rate of hospitalization in psychiatric wards was 0.86 per 100,000 inhabitants, while the number of outpatient visits was just under 50 per 100,000. A psychiatric *follow-up* after hospital discharge involved about 25% of patients (13). Currently, Niger has very few psychiatrists, all in the capital. According to data from the *Global Health Observatory*, the number of psychiatrists per 100,000 inhabitants is extremely low (in 2016 it was 0.014), reflecting a severe shortage of mental health professionals in the country (19). The number of psychiatric nurses per 100,000 inhabitants is 0.065 while for psychologists the value is 0.02, all mostly concentrated in Niamey (20). There are three residential psychiatric facilities throughout the country, while local mental health services have been activated in the context of a non-governmental project in Niamey (*Projet de Réadaptation a base communautaire aux Aveugles et autres personnes Handicapées du Niger*, PRAHN). The latter consist mainly of occasional awareness «camps» in remote areas, each of which requires several days of travel and considerable resources for the organization, however failing to guarantee a constant presence in terms of care and assistance.

The availability of psychotropic drugs is scarce, despite a relatively well-organized national drug supply system based on the Bamako Initiative (21). Although in principle this should ensure the availability of affordable medicines, of the WHO Basic Standard List, only phenobarbital, carbamazepine, chlorpromazine, haloperidol, diazepam, benzhexol and amitriptyline are easily accessible in major hospitals. Outside of hospital settings, only phenobarbital and diazepam are routinely available (22). The World Health Organization (WHO) provides some regular funding for the supply of psychotropic medications. In addition to the shortage of psychotropic drugs, there is also a shortage of personnel qualified to prescribe them, so especially in community services, it is common practice in African countries for this task to be carried out by other health workers, mostly psychiatric nurses (23). However, there is evidence that targeted education and training programmers can have a positive impact on nurses' prescribing standards in care settings in some African countries (24).

The training of a psychiatrist specialist may include obtaining a degree in medicine and surgery at the Université Abdou Moumouni in Niamey, but not specialization: those who wish to specialize in psychiatry, in fact, seek training opportunities in other countries such as Senegal, Benin, Morocco, France that offer specialization programs for

Nigerien doctors. Until recently, all training for doctors and nurses took place outside the country, i.e. in Morocco, Senegal or Burkina Faso. A psychiatric nursing school was opened in Niger in 2003. Typically, seven or eight nurse specialists graduate here every 2 years, all employed in government services. Basic mental health training for primary care staff, however, is not maintained by ongoing refresher and supervision. There is no national association of mental health professionals, although there are groups of service users and *caregivers* who support people with epilepsy and intellectual disabilities. There is professional interaction with other French-speaking African countries (e.g. through the West African Health Organization - WAHO) and French universities have some academic collaborations with Nigerien institutions. Finally, the French-speaking tradition constitutes a major barrier to access to scientific information, given that most journals and *online resources* are in English, and poses a further obstacle to research and scientific and technological progress in the country (25).

Discussion

As in other West African countries, several efforts have been made and are still underway to implement both governmental and non-governmental mental health programs and projects in Niger. A national mental health policy was formulated in 1993, and a national mental health plan was developed with the help of the WHO in 1995, revised in 2000 and 2004. Unfortunately, the practical implementation of the plan has not progressed beyond some training activities. There has been little long-term impact of the principles of decentralization of services that formed the core of these policies and plans (14). From the end of the nineties and until about 2007, one of the most important integrated projects both governmental and non-governmental ever developed in Niger was active, the previously mentioned PRAHN. It has been one of the most enduring and most targeted initiatives to improve the quality of life of people with mental distress.

This project adopted a community-based rehabilitation approach with modifications inherent in primary care (26), a strategy promoted by the WHO to ensure that persons with disabilities can access the necessary services and actively participate in society. PRAHN has had a significant impact on the lives of people with disabilities in Niger, helping to reduce discrimination and improve social inclusion. It has also improved access to essential services and provided people with disabilities with the skills they need to become more self-reliant and actively participate in the economic and social life of their country. However, much remained to be done for subsequent similar projects still present and active in the country. Niger, in fact, does not yet have any legislation regarding the protection of mental health. Since 2017, there has been a new implementation policy for mental health services, but there are no government financial or human resources dedicated to this purpose, except for those of general hospitals, but even here mental health budgets are not fixed. On the other hand, there are no plans, let alone government resources related to the development of mental health services in childhood (13). However, there is a project to open the first child neuropsychiatry department in Niger in the context of a mental health development program promoted by an Italian NGO (27) and supported by various government organizations (28). Even with strong *advocacy* activity, it is unlikely that there will be adequate funds in the national budget for the implementation of mental health programs in the coming years, which makes the use of external agencies the main source of supply for projects currently underway. The integration of mental health as a cross-cutting issue within other areas is a useful option to find resources (29), but at the same time it is necessary to work towards a specific policy on mental health (30), possibly integrating internal, external, governmental and non-governmental resources. Maintaining a good relationship between the government, the WHO national office and the non-governmental sector (a major health care provider in Niger), is a prerequisite for the pursuit of public health objectives with particular reference to mental health. The *outcome* of this complex work of organization and coordination is the implementation of the provision and accessibility of psychiatric care, in line with recent international initiatives to enhance services in low-income countries in full recognition and transposition of internationally recognized standards on the protection of human rights (31).

Conclusions

In Niger, mental disorder is often stigmatized, with cultural beliefs that may attribute the causes of mental illness to supernatural or moral factors. This stigma can prevent people from seeking help or receiving adequate support. Mental health facilities are scarce and concentrated mainly in urban areas. People in rural areas have very limited access to mental health services. The lack

of qualified personnel, such as psychiatrists, psychologists and social workers, further limits access to care. Many healthcare professionals are not properly trained to recognize and treat mental disorders. This means that mental health issues can go unnoticed or be treated inappropriately. Violence and conflict within the country contribute to the genesis of trauma and psychological stress in the population being mainly associated with anxiety and depressive disorders, post-traumatic stress disorder and substance use. Forced displacement further increases the risk of mental disorders, as well as extreme poverty, food insecurity and difficult living conditions. The daily efforts of most of the population to meet basic needs can exacerbate psychopathological conditions such as anxiety or depressive symptoms. Although communities can be a supporting factor in psychological distress, the weakness of social support systems, the lack of awareness and resources severely limits their role and effectiveness. In conclusion, the strategies that can be introduced for the implementation of mental health services in Niger, with reference to the developmental age, must take into account numerous factors. There is a need to raise awareness of mental health issues to reduce stigma and promote help-seeking. It is essential to strengthen the training of health personnel to recognize and treat mental disorders and to find sufficient human resources. Facilitating access to mental health services, especially in rural areas, and expanding the offer of services to the developmental age makes it possible to aim for standards of service delivery based on more recent evidence-based guidelines. Implementing psychosocial support programs allows you to aid in dealing with trauma and stress. Finally, it is essential to develop mental health policies that integrate mental health into primary health care systems and that are sustainable in the long term by promoting collaboration and coordination with national, international and NGO organizations, to find the widest possible number of resources and technical support. Addressing mental health issues in Niger, in summary, requires an integrated, multi-sectoral approach, including government, international organizations, local communities, and other *stakeholders*. Only through a concerted and sustainable commitment will it be possible to improve the mental health of the Nigerien population.

Disclosures:

The Authors declare no conflict of interest.

Article received on 16/11/2024; reviewed on 05/12/2024; Accepted on 02/04/2025.