Characteristics of Pacific Island People Admitted to a New Zealand Inpatient Forensic Service

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This study describes the characteristics of Pacific Island patients admitted to the Auckland Regional Forensic Psychiatry Service, at Mason Clinic, the largest of five forensic hospitals in New Zealand. Sixty-nine Pacific Island patients admitted over a 9-year period (2009–2017) are described in terms of their sociodemographic and clinical characteristics, access to community mental health care prior to arrest, and their legal history. The majority were men, born in New Zealand, who were single, with poor educational achievement, unemployed, with minimal religious and cultural affiliations, and still living with family prior to the index offense. Almost all had a major psychotic illness, with a mean duration of untreated psychosis of 2.5 years. Most used alcohol and cannabis, and almost half used methamphetamine. The majority of index offenses were violent in nature. These findings identified a disadvantaged and vulnerable group with multiple diagnoses and limited access to mental health services. Culture is fundamental to the causes, course, and care of mental illness. The design and delivery of services that are responsive to the mental health needs of this culturally diverse group may lead to better health outcomes and reduced inequities.

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The term "Pacific" in the New Zealand context relates to descendants from the island nation countries of Samoa, Niue, Cook Islands, Tonga, Fiji, Tuvalu, and Tokelau. Also included under this term are individuals from Tahiti, New Caledonia, Kiribati, Vanuatu, Solomon Islands, and Papua New Guinea.[1] The fourth largest ethnic group in New Zealand is the Pacific population, behind European, Maori (the indigenous people of New Zealand), and Asian. Pacific people constitute 7 percent of the total population in New Zealand, an 11 percent increase from the 2006 census; this growth is continuing.[2]

Between the 1950s and 1970s, a significant number of people arrived in New Zealand from the Pacific Islands. Immigration controls were much more relaxed, and the postwar economy provided more work opportunities. The New Zealand economy declined as a result of the oil crisis in 1973. Immigration policies tightened, and there was a high unemployment rate. Despite all of this, Pacific people continued their work within the labor services sector. In 1975, during the government elections, Pacific people were identified as "over-stayers," and immigration officials and police searched for Pacific people to be deported back to the islands. This was known as the "Dawn Raids".[3] These actions caused significant conflicts between the government of New Zealand and the Pacific communities, which led to the establishment of a major political force led by Pacific leaders. This enabled the Pacific communities to pursue their own specific services, including

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mental health services within government health services and non-governmental organizations.[3]

Background

Health of Pacific People in New Zealand

Pacific populations have poor health outcomes, indicated by increased rates of chronic disease, lower life expectancy, and high disability rates compared with the general population in New Zealand.[1] The Medical Council of New Zealand noted that "despite seeking care appropriately, Pacific people often don't receive the high-quality, timely services they need" (Ref. 4, p 11). The Medical Council of New Zealand noted that much progress has been made to improve health outcomes, but there is still strong evidence of health inequities for Maori and Pacific people. The Medical Council emphasized in a position statement that we all "have a professional and moral responsibility to work to eliminating such inequities" (Ref. 5, p 3). Inequities are significant, illustrated, for example, by the excess number of Pacific people living in severe hardship (27% compared with 7%), the two-fold higher unemployment rate (14%), and lower home-ownership rates (33% of Pacific people own homes versus 63% of the general New Zealand population).[2]

Mental Health of Pacific Migrants

In New Zealand, little is known about the mental health of Pacific peoples. The *Te Rau Hinengaro*, the New Zealand Mental Health Survey, was the first national community-based epidemiological study to investigate the rates of mental disorder and to consider the severity and comorbidity of mental disorders and help-seeking behaviors reported by ethnicity.[6] The study showed a high prevalence of serious mental disorders and comorbidities in the Pacific population. For instance, 24 percent of Pacific people experienced mental distress compared with only 19 percent of the general New Zealand population. Yet only 25 percent of Pacific individuals with serious mental illness received treatment services, compared with 58 percent of those with mental illness in the general New Zealand population.[6] Pacific people generally have poor access to mental health care.[7]

In the United States, when Pacific migrants present to mental health services, they show similar behavioral patterns as Pacific migrants in New Zealand.[8] Their presentation is usually delayed, and they often present when acutely unwell. Further, the international literature suggests that immigrants have a high number of admissions for psychosis.[9,10] In the United States, ethnic-specific and culturally competent mental health services, which include bilingual staff for Pacific communities, resulted in positive health outcomes for service users.[8] Ethnic and linguistic diversity among mental health and disability professional staff is linked with improved care and better access for the vulnerable and disadvantaged populations.[11,12] This is vital when designing and developing appropriate services that are responsive to the mental health needs of Pacific populations.

Pacific Perspectives of Mental Health

Pacific cultural values include a collective view of strong extended family ties, social inclusion, and connection with each other. Pacific people maintain a communal approach to life, where they place great value on family and community relationships within one's environment. Reciprocal responsibilities within these relationships and extended family are vital aspects of Pacific people's way of life.[1] To understand health behaviors, it is necessary to understand the Pacific people's perspectives of health. A communal view of health is what many Pacific cultures believe in, as opposed to a more individualistic approach to life in Western societies. Most Pacific cultures value respect and spiritual faith.[13]

Pacific people view mental illness as either inherited or caused by spiritual problems.[14] A qualitative examination of Samoan views on mental health identified the relational self concept as central to Samoan perspectives and mental health needs. This concept of self was defined by Tamasese *et al.* as "a state of relational harmony, where personal elements of spiritual, mental and physical [health] are in balance" (Ref. 14, p 83). Tamasese and colleagues observed that mental illness was also believed to be caused by social problems within the New Zealand context, such as poverty, unemployment, expensive housing, and, in particular, marginalization of Samoan cultural values. They therefore recommended that there is a need to establish services that focus not only on mental health, but also on the cultural needs of Samoans in New Zealand.[14]

The Samoan self is believed to be a relational being, that is, the Samoan person does not exist as an individual.[14] Everyone exists as a part of the community, in

order to be given value worthy of consideration in every respect. The alternative is an individualistic person being attributed value equivalent to that of a nonhuman animal.

Tapu means forbidden and *sa* means sacred. *Tapu* and *sa* function as protective mechanisms to ensure safe boundaries, maintaining mental wellbeing and stability within relationships.[14] From a Samoan perspective, mental unwellness is believed to be a result of disrespectful behavior or breaching *tapu* and *sa* within relationships.[12] An example is a Samoan man who lives to become a 60-year-old father, grandfather, or great-grandfather himself but is still forbidden from ever speaking disrespectfully to his elderly 80-year-old father or his younger 50-year-old sister, because culturally these are sacred relationships that he must honor and respect unconditionally. The forbidden act is a mere utterance in opposition or dissent to the views, wishes, or commands of the father or sister. The cultural context is that a man is invited to have audience with his parents; as much as possible, he must avoid being in the presence of his sister.[14] It was believed that mental illness "could be addressed effectively only within protocols laid down in the culture" (Ref. 14, p 84).

From a Samoan perspective, healing is about meaningful reconciliation to restore significant relationships and a sense of wholeness in relation to others.[14] This process involves reconnection or *fa'asinomaga* (indicators of identity and belonging); acknowledgment of roles and responsibilities or *tofiga* (heritage); and restoration of relationships known as *va fealoaloa'i* (relationships of mutual respect) and *va tapuia* (relational arrangements that are sacred).[14]

New Zealand Forensic Mental Health Services

The New Zealand adult general mental health services often have difficulty providing for vulnerable populations, and these patients are often homeless, are frequently admitted to inpatient units, and are commonly involved in the legal system. It may be postulated that the quality of general mental health services is inversely proportional to the percentage of patients referred to forensic services.[15]

The Mason Report, issued by a Commission of Inquiry, provided the blueprint for provision of forensic services in New Zealand.[16] The Mason report followed an incident involving a Samoan (Pacific Islander) man who migrated to New Zealand in the 1960s. He was diagnosed with schizophrenia associated with serious violence. He was refused hospital admission. Later that night, he killed two fellow residents at his boarding house and seriously injured two other members of the public. The recommendations of the Mason Report focused on establishing forensic mental health services for offenders with serious mental health problems. Importantly, the recommendations included: the recognition that prisoners with mental illness had the same right to access mental health care as anyone else in the population; the health system, rather than the correctional system, is primarily responsible for the care of mentally ill offenders; and cultural understanding and the provision of services in a manner respectful of the person's cultural, spiritual, and ethics beliefs are essential clinical requirements.[16]

There are five regional forensic services in New Zealand. All include liaison with the courts, acute inpatient care and long-term rehabilitation units, community outpatient treatment, and an in-reach model of service delivery for mental health care in prisons.[17] Research investigating mental illness in forensic settings in New Zealand has shown a high rate of psychotic illnesses, bipolar disorder, and major depression in prison populations.[18] A study of New Zealand inmates ($n = 530$) reported that 51 percent have serious mental illness, of whom 18 percent have diagnosed psychosis, 22 percent hypomania/mania, and 40 percent major depression.[19] In another prevalence study in a New Zealand forensic hospital, the majority of patients (87%) met criteria for a psychotic disorder, and personality disorders were diagnosed in a third (33%).[20]

In New Zealand, the Mental Health (Compulsory Assessment and Treatment) Act of 1992[21] [MH (CAT)] ensures psychiatric assessment and treatment of any person considered to require mental health treatment. Psychiatric treatment pursuant to the MH(CAT) Act cannot be enforced in prison. Therefore, patients in prison who have severe and acute mental illness with associated risks to themselves or others are admitted to forensic inpatient hospitals for care under the MH(CAT) Act. Compulsory admissions to inpatient forensic hospitals can also be facilitated under the Criminal Procedure (Mentally Impaired Persons) Act 2003,[22] the Intellectual Disability (Compulsory Care and Rehabilitation) Act,[23] and The Crimes Act 1961.[24] Compulsory outpatient community

treatment orders ensure community follow-up and mental health treatment provisions for those under the Act.[21]

The courts can grant "Special Patient" status to those found not guilty by reason of insanity or unfit to stand trial. Special Patients are subject to far greater controls that are overseen by the Ministry of Health. Imposing Special Patient status on a person found not guilty by reason of insanity is founded on the belief that punishment would not serve as a deterrent, or that a person should not be punished for an act that was not undertaken with criminal intent.[24] Special Patients usually undergo a rehabilitative pathway through forensic services, and discharge is based primarily on the concerns for public safety.[25]

Pacific People and New Zealand Forensic Settings

The New Zealand prison population exceeded 10,000 for the first time in 2016.[26] The Pacific population makes up 7 percent of New Zealand's total population,[2] and 8 percent of prisoners are Pacific people,[27] as are 16 percent of admissions to inpatient forensic hospitals.[28] This is in comparison to the Maori population, which makes up 14 percent of the New Zealand population, 50 percent of the prison population, and 40 percent of inpatient forensic hospital population.[28] A recent study of 105 patients discharged from inpatient forensic services at the Auckland Regional Forensic Psychiatry Service to forensic community team follow-up showed that 45 percent were Maori patients and 17 percent were Pacific patients, again indicating an overrepresentation of Pacific people in a forensic hospital.[29]

A recent report from the Office of the Ombudsman noted that prisoners frequently lack mental health care and support.[30] Pacific and Maori prisoners receive less treatment for mental illness in prison (as well as in the community prior to incarceration) compared with the general population.[27]

In recent decades, scholars have recognized the importance of culture within psychiatry and specifically in forensic assessments and treatment.[31–35] Although the overrepresentation of Pacific people in prison and inpatient forensic hospital has been signaled, little is known about the characteristics of this cultural group in this setting. Understanding more about this specific population of service users is critical in tailoring appropriate treatment programs to deliver high-quality mental health care, thereby lessening the burden on the health system.

Methods

The current study is intended to describe the common characteristics of Pacific patients admitted to Auckland Regional Forensic Psychiatry Services from 2009 to 2017. It further aims to identify patterns of engagement with mental health services prior to admission. A retrospective cross-sectional quantitative descriptive study was therefore performed.

The Auckland Regional Forensic Psychiatric Service is the largest of the five providers of forensic and intellectual disability services in New Zealand, providing services for a population of approximately 1.6 million individuals. It has 119 beds across acute inpatient and long-term rehabilitation units. The service also has a community outpatient team and provides in-reach services to correctional populations. Persons who identified as Pacific and were admitted to Mason Clinic, Forensic Services, Auckland, New Zealand from the beginning of 2009 to the end of 2017, including those who were subsequently discharged, were included in the sample ($n = 69$). Over the time frame of the study, Pacific people consistently represented 18 percent of patient admissions at the Mason Clinic.

Approval for the study was obtained through the Research and Knowledge Centre of Waitemata District Health Board, Project Code RM13832. Information was collected retrospectively from electronic medical records and patient files. These included records from psychiatrists, psychologists, social workers, nurses, and cultural advisors. Data were gathered about sociodemographic characteristics, use of language, migration, cultural and religious affiliations, psychiatric history, access to treatment for mental illness before forensic hospital admission, and forensic and criminal history. Statistical analysis, including means with standard deviations for continuous variables and percentages for categorical variables, was completed using SPSS (IBM Corp., Armonk, NY).

Results

Sociodemograhic Characteristics

Table 1 describes the demographic characteristics of this sample. The mean ± SD age of this sample

Table 1 Sociodemographic Characteristics

Mean age, y	38.8 ± 1.3
Ethnicity	
Samoan	34 (49)
Tongan	20 (29)
Cook Island	9 (13)
Niuean	4 (6)
Fijian Indian	2 (3)
Gender	
Male	55 (80)
Female	14 (20)
Marital status	
Single	45 (65)
Divorced	18 (26)
Married	3 (4)
De facto	2 (3)
Separated	1 (1)
Parental status	
No children	44 (64)
Yes	25 (36)
Country of birth	
New Zealand	42 (61)
Samoa	15 (22)
Tonga	6 (9)
Fiji	3 (4)
Cook Islands	2 (3)
United States	1 (1)
Living situation prior to arrest	
Family	36 (52)
Homeless	17 (25)
Flat-mates	6 (9)
Mental health residential	5 (7)
Alone	3 (4)
Boarding house	1 (1)
Prison	1 (1)
Mean age at leaving full-time education, y	15.5 ± 1.3
Level of education	
Secondary	57 (83)
Primary only	5 (7)
Tertiary	4 (6)
Missing data	3 (4)
Employment at time of arrest	
No	64 (93)
Yes	4 (6)
Missing data	1 (1)
Ever accessed benefit	
Yes	54 (78)
No	14 (20)
Missing data	1 (1)

Data are presented as *n* (%) unless noted otherwise.

Table 2 Culture, Language and Religion

Cultural activities contact	
No	52 (75)
Yes	12 (17)
Missing data	5 (7)
Primary language spoken	
English	47 (68)
Samoan	14 (20)
Tongan	8 (12)
Uses English satisfactorily	
Yes	61 (88)
No	7 (11)
Missing data	1 (1)
Uses Pacific Island language satisfactorily	
Yes	38 (55)
No	13 (19)
Missing data	18 (25)
Religion	
Yes	38 (55)
No	28 (41)
Missing data	3 (4)
Church activities contact	
No	56 (81)
Yes	11 (16)
Missing data	2 (3)

Data are presented as *n* (%).

was 38.8 ± 1.3 years. Males made up 80 percent ($n = 55$) of the sample. Almost half were Samoans (49%, 34), followed by Tongans (29%, 20), Cook Islanders (13%, 9), Niueans (6%, 4), and Fijians (3%, 2), representing the major Pacific Island ethnic groups in New Zealand. The majority (61%) of these Pacific people were born in New Zealand. Among the 39 percent who migrated to New Zealand, most did so as children, with a mean age at migration of 11 years old. Very few (4%) were married, with the majority either being single (65%) or divorced (26%). Just over one-third (36%) had children. One-half (52%) were still living with family prior to their index offense, and one-quarter (25%) were homeless, while others were living with flat-mates (9%), at mental health residential programs (7%), or alone (4%). The vast majority (93%) were unemployed at the time of their index offense. Three-quarters (78%) had accessed the social welfare benefit. Most (83%) only attended school as far as secondary school level of education; 15.5 ± 1.3 years was the mean age at which Pacific people in this sample left full time education.

Culture, Language, and Religion

Data regarding cultural, language, and religious backgrounds are presented in Table 2. At least three-quarters (75%) of the sample were not attending any cultural activities in the 12 months prior to their arrest. English was the primary language for two-thirds (68%) of the sample, and 88 percent were noted to use the English language satisfactorily. Just over half (55%) identified with a religion, but four-fifths (81%) were not attending any church activities in the 12 months prior to their arrest.

Table 3 Mental and Physical Health

Primary psychiatric diagnosis	
Schizophrenia	57 (83)
Schizoaffective	10 (14)
Psychosis not otherwise specified	2 (3)
Access to mental health services in the 12 months prior to the offending	
Engagement prior to offending	30 (43)
No engagement prior to offending	39 (57)
Past treatment	
Under legislation	58 (84)
Not under any legislation	11 (16)
Substance use	
Alcohol	63 (91)
Cannabis	62 (90)
Nicotine	43 (62)
Methamphetamine	34 (49)
Physical health	
Obesity	35 (51)
Diabetes	14 (20)
No other evidence of disease	20 (29)

Data are presented as *n* (%).

Mental and Physical Health

Table 3 describes mental health and physical characteristics. Almost all subjects had a diagnosis of a major psychotic disorder, including schizophrenia (83%), schizoaffective disorder (14%), and psychosis not otherwise specified (3%). One-quarter (23%) were prescribed clozapine, indicating more severe and treatment-resistant psychotic disorder; the rest were prescribed other antipsychotic medications in the form of tablets or injections to enhance compliance. The average duration of untreated psychosis was 2.5 years prior to arrest. The vast majority had used alcohol (91%) and cannabis (90%) in the past. Almost half (49%) used methamphetamine, and 15 percent had used solvents in the past. Three-fifths (62%) smoked cigarettes in the past. Regarding physical health, just over half (51%) were diagnosed with obesity, and one-fifth (20%) had a diagnosis of diabetes.

Less than half (43%) had accessed Community Mental Health Services prior to their index offense. The mean number of prior admissions to acute general mental health services was six. The majority (84%) had been treated under compulsory legislation in the community. The mean age at first presentation to mental health services was 23.3 ± 1.3 years, and the mean age at first admission to a mental health hospital was 29.1 ± 10.8 years.

Criminal Histories and Outcomes

Table 4 describes the legal charges for the sample. The mean age at index offense was 30.5 ± 10.1 years.

Table 4 Criminal Offenses

Nature of index offense	
Violent	60 (87)
Sexual	6 (9)
Missing data	3 (4)
Legal charges	
Assault	43 (62)
Murder	8 (12)
Sexual assault	6 (9)
Breach of supervision	3 (4)
Attempted murder	3 (4)
Burglary	2 (3)
Arson	1 (1)
Missing data	3 (4)

Data are presented as *n* (%).

Most (87%) of the index offenses were violent in nature, including assault (62%), murder (12%), and attempted murder (4%), as well as sexual offending. Most had a history of previous violence (83%) and previous incarceration (70%). Table 5 describes legal outcomes. Of the sample, the largest group (41%) were placed under the MH(CAT) Act 1992. Almost one-quarter (23%) were granted Special Patient status due to being unfit to stand trial or not guilty by reason of insanity, and 4 percent were placed under the Intellectual Disability (Compulsory Care Rehabilitation) Act 2003.

Discussion

Sociodemographic Characteristics

The majority of this sample were young Pacific men born in New Zealand, who used the English language satisfactorily, and were predominantly from socially disadvantaged backgrounds with poor education and unemployment. Most had minimal religious and cultural affiliations. There is robust evidence to show that the underprivileged in society are overrepresented in forensic services and that environmental adversity is important in the occurrence of several types of

Table 5 Legal Outcome

Mental Health Act	28 (41)
Sentenced prisoner	13 (19)
Special Patient: not guilty by reason of insanity	10 (14)
Unfit to stand trial	6 (9)
Remanded in custody	5 (7)
IDCCR Act 2003	3 (4)
Informal (noncompulsory patient)	3 (4)
Hybrid	1 (1)

Data are presented as *n* (%).

psychopathology.[36] In general, migrants and minority ethnic groups with severe mental disorders present challenges for the provision of mental health services. This is because their impaired functioning associated with severe and persistent mental disorders is usually complicated by the psychosocial stress of migration, including discrimination, language barriers, inadequate housing, unemployment, poverty, limited education, and poor access to services.[37]

Similar to the Auckland forensic hospital study,[28] most of the subjects in our study were single, and only a few were married or in a *de facto* relationship. This may indicate difficulties in establishing and maintaining meaningful relationships, likely as a result of their psychotic illness and consequential poor social and cognitive skills. Just over half were still living with their families, reflecting the commonality that Pacific people care for the sick at home. The rest of the sample previously required some sort of supported residential accommodation indicative of the severity of their illnesses and difficulty with living independently.

As noted previously, the majority of our sample were born in New Zealand, with minimal religious and cultural affiliations. The New Zealand Mental Health Study, *Te Rau Hinengaro*,[6] reported that Pacific people who were born in New Zealand had a two-fold increased prevalence rate (31%) of any mental health disorder, compared with only 15 percent of Pacific people who migrated to New Zealand after the age of 18.[6] There appeared to be a higher risk of developing a mental disorder if one was born in New Zealand. Pacific people who were born and raised in New Zealand obviously experienced a different environment compared to their counterparts from the Pacific islands, and they might not share the same cultural views and belief systems as those from the Island countries, including their own parents. Low attendance at cultural and religious activities in this sample could be due to several factors, such as limited availability of appropriate programs, lack of interest, language barriers, fear of discrimination, stigma, or the unavailability of cultural and church activities. More research would be helpful to clarify these areas. In any case, the cultural services currently embedded within forensic services must ensure that their approach is appropriate and acceptable for the New Zealand-born Pacific individuals.

Ethnic minority status has been correlated with low socioeconomic status, dysfunctional families, unemployment, and poor educational achievement; each of these factors has been correlated with increased rates of offending, mental illness, and substance misuse.[38] It is little wonder, therefore, that people of minority ethnicity, such as Pacific people, were overrepresented in this forensic hospital setting. Overall care for Pacific patients clearly requires attention to the social determinants of disadvantage.

Taumoefolau noted Pacific people's experiences of the health system are influenced by their perspectives, values, and cultural belief systems.[39] This can be illustrated by the the Fonofale model of mental health care,[40] which reflects Pacific cultural values and world views. The Fonofale model, developed with consultation and presented in 1995, utilizes the model of the Samoan *fale* (house) to include the important pillars of family, culture, and spirituality in mental health care. These features are quite different from the mainstream Western paradigm, which is predominant in New Zealand.[41] The Fonofale model emphasizes Pacific core values embedded in its culture, as well as the extended family concept. The main elements consist of physical, spiritual, mental, and "other," which refers to factors that can affect health directly or indirectly (including education, social class, age, employment, gender, and sexual orientation). Pacific cultural values and these four domains of health are all important in maintaining stability and wellbeing of Pacific people.[40]

In the New Zealand census data of 2006, most Pacific people (83%) identified having at least one religion compared with 61 percent of the New Zealand population. In the 2013 census, 78 percent of Pacific people identified themselves as Christians, which is higher than the 48 percent of the overall New Zealand population that identified as Christian. Only 17 percent of Pacific people stated that they had no religion, compared with 42 percent of the total New Zealand population.[42] On the face of these statistics, Pacific people appear to value religion more than the general population in New Zealand. Thus, in the Fonofale model, the spirituality domain must be considered as an important part of the assessment and management of mental health problems of Pacific people.

The literature shows an interesting finding that individuals with psychotic disorders in developing countries have better outcomes compared with those

from developed countries.[43] Pacific people in New Zealand appear to experience more mental distress compared with the general population.[6] There are no prevalence studies of mental disorders in the Pacific Island nations, but from anecdotal reports of work experience in the Pacific Island countries, there appear to be strengths within Pacific societies that contribute to improved wellbeing and better outcomes for individuals with mental illness. Pacific societal and cultural values and strengths should therefore be considered when designing mental health services for these communities.[44]

Psychiatric Disorders

The high number of Pacific admissions to the inpatient forensic hospital indicates a significant mental illness component in Pacific people in the criminal justice system. Almost all of the subjects in our sample received a diagnosis of a major psychotic disorder, with high rates of comorbid alcohol and cannabis use. One-quarter required clozapine, and the majority had previously received compulsory treatment. These factors indicate the severity of mental illness and the need for intense follow-up under legislation in the community. Similar to our sample, most of the sample (88%) in the prior New Zealand study had a diagnosis of a psychotic disorder, which included 64 percent schizophrenia and 19 percent schizoaffective disorder. The majority had two or more diagnoses, including substance-related disorder and personality disorder as well as a severe mental illness.[28]

Substance use comorbid disorders are common in individuals with mental illness.[45] The rate of substance misuse in New Zealand is disproportionately higher in comparison to other countries, including 32 percent of men in the general population who have alcohol abuse or dependence.[38] Migrants from the Pacific Island nations have experienced rapid acculturation and sociocultural change. Such experiences have been associated with problem behaviors, such as substance abuse and increase rates of mental illness.[7]

Access to Mental Health Services

Many in the current sample had long-standing involvement with general adult community mental health services, although less than half (43%) had access to this service at the time of their index offense. This was despite an average of six previous admissions to adult general mental health services. The estimated mean duration of untreated psychosis of 2.5 years highlighted the delay in presentation and treatment.

Compared with the general New Zealand population, Pacific people have poor access to community mental health care, yet they have more admissions to acute inpatient services and utilize forensic services to a greater extent.[7] Pacific clients tend to stay for about four days longer in general psychiatric units.[7] Data from national studies in New Zealand support high inpatient admissions of Pacific people to both general mental health and forensic hospitals.[7]

Pacific people experiencing severe mental illness are often recognized after they have been convicted and sentenced, rather than being recognized earlier in the court process.[18] This late recognition of Pacific people with serious mental illness can prolong inpatient admission and can be fatal, as the Pacific population has a high rate of suicide attempts.[6,27]

Physical Health

Individuals with serious mental illness often experience poor physical health as a result of an interplay of factors such as poor lifestyle and side effects of psychotropic medications. Individuals with mental illness die earlier, especially from cardiovascular disease, to which poor diet, smoking, obesity, and diabetes contribute.[46] Inequality and disparity in medical care provision is a major contributor to the poor physical health of individuals with serious mental health problems. Socioeconomic disadvantage, difficulties obtaining health insurance, negative symptoms of a psychotic illness (e.g., lack of motivation, cognitive deficits), and stigma leading to physicians' discomfort in treating mentally ill patients combine to limit the ability of these patients to obtain adequate medical care.[47]

Half of the current sample were obese, one-fifth had diabetes, and the majority smoked cigarettes and used illicit substances. The study by Easden and Sakdalan[28] highlighted that physical health complications like obesity, hyperglycemia, diabetes, and constipation are common in an inpatient forensic hospital (38%) and were related to metabolic derangement.

A high prevalence of adult obesity, 31 percent, was identified in the New Zealand Health Survey 2018. The prevalence of adult obesity varied by ethnicity, with the highest rates among Pacific people (67%)

compared with Maori (48%), European (29%), and Asian (14%). Compared with non-Pacific adults, Pacific adults were more than twice (2.5 times) as likely to be obese.[48] An estimate of more than 200,000 people were diagnosed with diabetes, and Maori and Pacific population rates were about three times higher than the total New Zealand population.[48] In terms of smoking, adults from low socioeconomic groups were much more likely (3.6 times) to smoke. Approximately one-quarter (24%) of adults of Pacific ethnicity were smokers.[48]

Accessing mental health services is likely to offer an opportunity for Pacific patients with mental illnesses to be referred for appropriate medical care. Extensive literature supports an association between available medical care in primary care services and improved outcome of physical health in those with severe mental illness.[49,50]

Limitations

Data were retrospective, descriptive, and largely dependent on the accuracy of medical records. There were occasional missing data on variables, including the use of primary language, religion, culture, and migration status. Thus, information on sociocultural items were mostly obtained from cultural assessments made by cultural advisors within the service. There were also difficulties at times finding clinical information regarding duration of untreated psychosis and onset of mental health problems. While this study included data on all identified Pacific patients at the Auckland regional forensic hospital, it is possible that there would be different findings for Pacific patients at other regional forensic hospitals.

Conclusion

Pacific people are overrepresented as users of forensic services. Their poor socioeconomic status likely contributes to poor mental wellbeing. Addressing social determinants of health (e.g., poor educational achievement, unemployment, homelessness, and poverty) is essential in improving mental health outcomes for this population. Research is needed to examine the relationship between Pacific traditional perspectives, values (i.e., culture, language, and religion), and impact on mental health. Accessing appropriate and adequate mental health interventions in a timely manner requires the education of Pacific families and communities about potential consequences of mental illness left unrecognized and untreated, such as serious violent offending. Effective mental health services require professional staff who are culturally and clinically competent to deliver acceptable, appropriate, and adequate services for Pacific people. Early identification and assertive treatment of severe mental illness is crucial in reducing fatal outcomes such as violent offending. A holistic approach, including treatment for substance use and physical health problems, should be integrated into care for this population. The development of Pacific Mental Health Services incorporating both clinical and Pacific cultural values illustrated by the Fonofale model of care should be considered in the design and delivery of effective care that is responsive to the mental health needs of this culturally diverse population.

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